

Moral Competence of Contemporary Adolescents: Technology-based Ways of Measurement

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Abstract

The modern world offers human beings a lot of different contradictory moral values and orientations. This issue is particularly important for adolescent moral development, which is the time when one determines his/her own values depending on his/her developing world outlook. This period of personal growth, which complexity is governed by emotional, cognitive and social perspectives, is crucial for moral development. In this sense, a theory of moral development has to take into account all of these perspectives, and especially the affective one. Adolescents face more difficulties in identifying and recognizing the moral content of a real-life social situation than in dealing with its other content. To vividly explore adolescent moral competence as a significant indicator of moral development, it is important to have at one's disposal an instrument to make moral dilemma content explicit for an adolescent. Such an instrument should include an emotionally marked environment, which represents a realistic situation and motivates adolescent to make decisions. The strength of video technologies is discussed in the dissertation. It is assumed that visualized presentation of different moral dilemmas using special videos reflects the level of adolescent moral competence (and consequently produces higher results in assessed level of moral competence) more adequately than a traditional textual presentation. Accordingly, this general hypothesis was stated and a new method - *Adolescent Moral Competence Test* (that includes video-based moral dilemma and a questionnaire for measuring adolescent moral competence) was developed. To empirically test the effectiveness of the new technology-based method of moral competence measurement, three studies were conducted. The first pilot exploration study indicated that the new video-based method was ready for hypothesis testing. The results of the two subsequent main studies clearly supported the major hypothesis. Additionally, age and gender differences in adolescent moral competence were discovered, which supported minor hypotheses of the study. Discussion on strengths, open questions and perspectives for future research are presented.

Zusammenfassung

Die moderne Welt konfrontiert den Menschen mit einer Vielzahl widersprüchlicher moralischer Werte und Orientierungen. Dieses Problem ist insbesondere für die jugendliche Moralentwicklung wichtig, wenn ein Junge oder ein Mädchen mit ihrer/seiner sich entwickelnden Weltbetrachtung die eigenen Werte bestimmen muss. Die Komplexität dieser Wachstumsperiode ist durch emotional kognitive und soziale Aspekte bestimmt, je nachdem welcher Aspekt signifikant für die Moralentwicklung ist. In diesem Sinne muss eine Theorie über die Entwicklung der Moral alle diese Faktoren in betracht ziehen, insbesondere die affektive Komponente. Heranwachsende stoßen bei der Identifizierung und Adaptierung moralischen Inhalts in realen sozialen Situation mehr als bei anderen Inhalten auf Schwierigkeiten. Um jugendliche Moralkompetenz als einen bedeutenden Indikator für Moralentwicklung zu erforschen, ist es wichtig, ein Instrument zur Verfügung zu haben, mit dem man das moralische Dilemma der Jugendlichen verständlich machen kann. Ein solches Instrument sollte also eine emotional gekennzeichnete Umgebung beinhalten, die eine realitätsnahe Situation darstellt und zur Entscheidungsfindung motiviert. In der vorliegenden Dissertation werden die Stärken von Videotechnologien diskutiert. Es wird angenommen, dass speziell angefertigte Videos zu unterschiedlichen moralischen Dilemmas besser die Stufen der jugendlichen moralischen Kompetenz reflektieren, als traditionelle textuelle Repräsentationen (und konsequenter Weise auch bessere Ergebnisse in den Stufen der moralischen Kompetenz erreicht werden). Gemäß dessen wurde eine allgemeine Hypothese aufgestellt und eine neue Methode (*Adolescent Moral Competence Test*) zur Messung von Moralkompetenz Jugendlicher entwickelt, die videobasierte Präsentation von moralischen Problemen und einen Fragebogen zum Messen der Moralkompetenz enthält. Um die Effektivität der neuen "technologischen" Methode zu überprüfen wurden drei Studien durchgeführt. Die Pilotstudie zeigte, dass die videobasierte Methode dazu geeignet ist, die Hypothese zu überprüfen. Die Ergebnisse der beiden folgenden Hauptstudien unterstützten eindeutig die allgemeine Hypothese. Bei der Überprüfung von weiteren Hypothesen wurden Unterschiede in der Moralkompetenz Jugendlicher bei Geschlecht und Alter gefunden. Schließlich wurden Stärken, offene Fragen und ein Ausblick für zukünftige Forschung diskutiert.

Introduction

Despite the great number of theoretical and empirical researches, the issue of moral development seems to be one of the eternal questions of developmental and educational psychology. The reason for this is hidden in the structure of moral development, which raises an equal amount of both eternal questions (such as a question of comparison of moral judgment and moral behavior, relations among stages of moral development and intellectual development, etc.), and questions, related to the specificity of a historical period, which determines the research. So what questions could be considered to be specific to the beginning of the 21st century?

From my point of view, there are three such questions:

The *first question* relates to the constancy/variability of the moral norm contents, which depends on the dominating values within one or another societies, age sample, professional or social community. So, "*What characteristics of moral development and moral competence are decisive for such groups? To what extent is it possible to consider such characteristics as ones with universal traits? Do they vary? If yes, what is the dynamics of such changes and what initiates such kind of dynamics?*"

During the period of adolescence, significant changes take place in the sphere of *emotional, cognitive* and *social* development of one's personality. The problem of moral development is especially important in adolescence, when a young, developing person with his/her changing outlook is required to determine his/her own values (Bozhovich, 1995). Thus the crucial period of moral development is considered to be the period of adolescence, and its main features and peculiar properties in regard to moral development are discussed in Chapter 1.1 of the thesis (Part one).

In regard to the content, structure and dynamics of moral development there are several approaches in the world psychology and education. *Psychoanalysis, behaviorism, cognitive psychology, integrative approaches* and *cultural-historical* approaches are presented in Chapter 1.2 of this study. With issues of moral competence, moral development and its assessment it is important to address *cultural-historical* and *cognitive* approaches, in frameworks of which these topics are explored more precisely.

The issue of *cognition* and *affect* and their interaction is also examined. Such questions arouse in moral psychology at the end of the last century and exploded with a new strength. Issues of emotions and moral emotions (e.g., empathy) and their influence on moral judgment and moral behavior appeared to be of high significance for the understanding of moral

development. I suppose that in addition to cognitive, affective component has also to be presented and precisely explored in terms of moral judgment and moral development investigation. This question is presented in Chapter 1.3 of the thesis.

Further, in Chapter 1.4 the reader will get acquainted with one of the central concepts of the thesis - *moral competence*, its definitions and approaches. The definition and comprehension of moral competence that would be used in the frameworks of this thesis are discussed. The impact of decision-making process and significance of system of psychological conditions for moral competence development are also discussed in this section.

Moral competence couldn't exist and develop in vacuum independently on personal and social development. As stressed in Chapter 1.5 factors like age and gender, family and upbringing, school education, role of moral dilemma structure, moral values of the person and situational factors influence and determine the process of moral competence and moral development.

A lot of fundamental works published by Piaget, Kohlberg, Lind, Rest, etc. and their followers have been devoted to the problem of moral development and moral competence estimation beginning from the middle of the 20th century. Summing up the state of the art Lind (1995/2004) asserts that there still exists a gap between the understanding of maintenance and measurement of moral competence till now and the results achieved by means of existing methods do not allow confidently confirming a fact of presence of certain moral competence but also do not deny this fact. This notion and explored developmental theories and methods of moral competence assessment brought me to the conclusion about the necessity to continue both research of the psychological content and development of the adequate tool for estimation of moral competence. In particular, I assume an important role of moral task presentation format. Thus, approaches to moral development measurement and importance of aspects of moral dilemma authenticity as a crucial aspect of moral task presentation are discussed in Chapter 1.6. To access and finally measure the structure of moral competence one needs to present the young respondent an authentic, realistic moral task (dilemma), which has to be quite emotional and significant for adolescent.

So the *second question* touches upon the *subject matter definition and methods of moral development and moral competence research*. Probably, there is no need to discuss irreducibility of moral development phenomenology to moral judgments (or to moral dilemmas solving). Research of moral development phenomenology, for instance, observation of the subject behavior while solving real-life moral dilemmas is often obviously not possible due to both ethical and practical

reasons. So one may answer the question "*How is it possible and is it necessary to investigate moral development nowadays?*" taking into account that the present-day informational environment, its semantics and semiotics, has an impact on a child, teenager or a young man's development, and highly differs from the same environment of the middle of the 20th century (at the time when Piaget, Kohlberg and their followers had been building the basics of moral development psychology) and even differs from the informational environment of 1980s or 1990s, taking into account that the personality values structure has already underwent and continues to undergo essential changes within this time range, due to the growth of adolescent subculture, etc.

Thus the *third question* arises – "*How can we use technology for moral development investigation?*". The media at the close of 20th and in the beginning of 21st centuries plays a crucial role in life of teenagers. All of them use such forms of media like music, television, video, Internet, and video games almost daily. Eventually media plays a large part in information, communication, and entertainment of adolescents, and even if they do not necessarily search for violent content, has become a substantial part of the modern media. The link between violence in media, and especially violent TV and video, to adolescent's judgements, and morally "negative" influence on real-life aggressive behavior and violence are revealed (e.g., Huston, Donnerstein, & Fairchild, 1992; Kunkel et al., 1999; Strasburger, 1997). Hence, media such as video plays a significant role in socialization and influences behavior (moral behavior, in particular), attitudes, and beliefs of adolescent. The *second Part* of the thesis presents the video from the "positive" side, as a powerful technology aimed on educational and psychological needs, in general, and particularly discusses the benefits and advances in video technology, and its affect on efficacy of moral dilemma judgment and its assessment.

Thus the *second Part* begins with a brief discussion of interrelation between adolescents and modern media, such as TV and Video (Chapter 2.1). One of the main advances of video technology (Chapter 2.2) is an ability to generate an emotional atmosphere and gain one's feelings, just as a potential with the identification of a movie's hero, and to build the preconditions for empathy appearance. Taking to account meaningful peculiarities of the moral task (i.e. emotionality, motivating for decision-making, significance and authenticity) uncovered in Chapters 1.3, 1.4, 1.5 and 1.6, video can support the process of moral competence investigation.

Broader view on video as a means of training and education is presented in Chapter 2.3. Within this Chapter areas of video usage in education and training are briefly presented. Also possibilities of dramatization and its instructional impact, and features of video-technologies for

educational settings are discussed. The next Chapter 2.4 presents some empirical data and brief comparison of video, sound and textual sources of information in the context of its value for learning and education. Important glance on video technology as a testing method is made in Chapter 2.5. Finally, the Chapter 2.6 uncovers important movie production techniques and conditions for watching video which have to be taken into account for production of qualitative educational or diagnostic video.

Finally in the *third* Part of the thesis, six issues (Chapter 3.1) regarding diagnostic material (particularly, development of stimulus material, and possibilities of video-based, instead of classical text-based moral dilemmas presentation), that would create preconditions for valid instrument production and further adolescent moral competence measurement are presented. Within the Chapter 3.2 and Chapter 3.3 research questions, assumptions and major and minor hypotheses are formulated, and further studied in the framework of Empirical study (*Part four*). Finally the *fifth* and *sixth* Parts conclude the results of the study, underline its strengths, weaknesses and open questions, which mention the backlog future research.

So a task to carry out the analysis of such problem as adolescent moral competence measurement and to plan approaches to its possible solution is analyzed in the recent study. It is clear, that such task statement has not just academic, but practical values as well. Investigation of the methods, which would allow highlighting the psychological maintenance of modern teenager moral development directly deduces on a problem of effective influence on a moral ground of the youth - a problem, which is in no doubt important for any society in the world.

1. Adolescence, Moral Development, Moral Competence and Its Measurement

1.1. Adolescent Moral Development in the Context of the Basic New Growth in the Teenage Years

The central adolescence age innovation is an *occurrence of a new level of consciousness* which is characterized by the ability and the need of youngsters to learn oneself as a personality (Craig, 1992/2000). This new level of consciousness generates needs for self-realization, self-education, self-affirmation and self-expression.

Equally important is *reflection*, which is supposed to be one of the important mechanisms in the personality development. During adolescence both personality and intellectual reflections acquire new characteristics and become a "reflection" in the original sense. Main psychological characteristics of teenagers are the ones, which make the basis for development of reflection that basically generates the need to understand oneself and to be up to the standard of ones own requirements (Bozhovich, 1995).

According to Leont'ev (1993), a *new birth* of the personality is relevant to the period of adolescence. At that period of time a person achieves not just a hierarchy of motives (that could be already observed at the preschool age) - but an opportunity of the conscious control of own behavior, an opportunity of the conscious management of the subject's motives. According to this "acquisition", the degree of personal responsibility for own behavior and acts also varies.

It is possible to distinguish three important developmental perspectives: *emotional*, *cognitive* and *social*, which has influence on adolescent moral development.

1.1.1 Emotional Development

Many researchers suppose development of emotional sphere to be rather important and even necessary condition for moral growth. According to Leont'ev by virtue of emotions people find out personal sense of events in our life. Due to one of the main functions of emotions - signaling – people obtain mechanisms of activity self-management (Leont'ev, 1993).

Dupont (as cited in Zuckerman & Masterov, 1995) describes some regularities of emotional development and defines its six stages. Adolescence is preceded directly *with an interpersonal* stage of emotional development. Communication with peers is typical for this stage. It is based on principles of equality and equality of rights, which are developed together in the groups of peers. At the same time relations of obedience and non-critical acceptance / rejection of the rules which are offered by adults are still kept.

At the age of adolescence *the psychological* stage of emotional development begins. The basic changes that occur at this stage are related to a search of oneself and to answer a question "*Who am I?*". At that period other people start to be estimated by teenagers in terms of their psychological qualities. Results of spontaneous self and other people's investigations are systematized in representations of adolescents about ideals, own life style, moral values etc. Those representations are going to be examined and would change comparatively with their conformity to conditions of a real life (Zuckerman & Masterov, 1995).

Integrative stage is the highest stage of emotional development. It is emphasized on blissful feeling of integrity, harmony, equation of the world. These feelings are experienced and more valuable, than life itself. The last stage of emotional development is completely bound with a philosophical concept of moral ideals and psychological sights at a moral maturity. The fundamental opportunity to achieve the two last stages appears at the end of adolescence but only few people reach those levels of emotional development (Zuckerman & Masterov, 1995).

Erikson (1994/1996) emphasizes that the first integral representation of the person about oneself, his/her life appears and *ego-identity* is formed at the age of adolescence. The alternative to this stage of development will be diffusive identity and role uncertainty. Formation of negative identity based on revolt and denying is also probable. Searching for ego - identity the teenager will be able to answer questions like: "*Who am I?*" and "*What is my further way?*", "*What actions are important for me?*" and "*What norms shall guide me, for estimating own and other peoples behavior?*". This process is related to comprehension of own value and competence. Evident complexities in search of identity might appear when valuable representations of parents, teachers and peers are not coordinated among each other.

Identity search can happen in different ways. It can be a trial of various social roles, search of morality etc. Following unconditional acceptance of family values it is possible to skip the identity crisis. Frequently, identity achievement is preceded by periods of difficulties, tests and mistakes. Sometimes strong sense of own identity is not achieved at all. Erikson (1994/1996)

affirms fuzzy feeling of self *ego* as a main danger. There are four possible ways of inadequate identity development. *Avoidance of mutual relations* means, that the person is afraid to lose his/her feeling of ego-identity in close interpersonal relations. It leads to either self-isolation or to formalization of relations. *Fuzzy time feeling* is related to the fear of changes and growing-up. In this case a person loses feeling of time and an ability to plan own future. *Fuzzy ability for productive work* forces the person to be protected from involvement in any kind of activity. The person with *negative identity* feels contempt and hostile aversion for the identity or a role which his/her parents or other adults prefer or follow, and tries to find something opposite (Erikson, 1994/1996).

Marcia (1980) adds on this and determines the concept of identity as a structure of a self-developing internal-ego, as a dynamic structure of individual growth needs, abilities, and beliefs. *Ego - identity* can be *diffusive*, *foreclosed*, *as a moratorium* and *achieved*. *Diffusive* identity assumes a crisis, but personal obligations and decisions are mostly avoided. A person with *foreclosed* identity is convinced of own basic orientations (in the case of crisis experience absence). The *moratorium* presumes a person to be in a stage of crisis and to be uncertain with own preferences, a search and a choice between alternatives goes on. *Achieved* identity means that the person has already gone through the crisis and the choice concerning professional, personal, ideological purposes and positions has already made.

1.1.2 Cognitive Development

Innovations in *cognition* also affect moral development. The period of adolescence is evident by the presence of abstract thinking, ability to formal operations and expansion of time prospect (Craig, 1992/2000).

The process of abstract and formal thinking formation goes in three basic directions (Obuhova, 1995). Development of combinatory appears as an ability to classify non-uniform subjects on the basis of the higher-order arbitrary criteria, i.e. development of the intellectual actions, which are carried out with abstract concepts. Thus this new level of logic enables to analyze any kind of situation independently based on the real circumstances. Likewise an ability to propose and check hypothesis, to reflect one's own ideas appears. Process of thinking becomes to be dependent on a formal logic. Hypothetic-deductive thinking appears, i.e. conclusions are based on the rules of combinatory and formal logic laws which allow to pose and experimentally check the hypothesis' correctness and to make following conclusions.

Vygotsky (1984) among the main innovations of the adolescence age in the cognitive sphere, besides the earlier mentioned conceptual and abstract thinking, adds relativity (or personalization) as a peculiarity of teenager thinking, i.e. "*I think*", "*I do*", and "*I see dream*", instead of "*Dream dreams me*". Thus changes in cognitive sphere prepare the occurrence of the responsibility for own behavior.

Also an ability to take a perspective of an associate person leads to comprehension of own personality advantages/weakness appears. Not only ideal and real ego, but also representations of oneself often do not coincide with opinion of others. Another prominent aspect of introspection – is the ability to distinguish inconsistency among ideas, words and acts. Remshmidt (1994) stresses that older teenagers understand and digest the fact that a person can think of one thing, speak of another, and execute something quite opposite.

Piaget (1983) emphasizes an important phenomenon of egocentrism, which appears in childhood and characterizes cognitive sphere of adolescents. Egocentric position is determined by the inability to take a mental position or to accept the point of view, which is different from his/her views. There are differences among child and adolescent form of egocentrism.

During childhood, relations of the child and other people can take two forms - compulsions and cooperation (Piaget, 1983). Compulsions characterize child and adults communication. Compulsion, forced by adult opinions and judgments, leads to child's development with occurrence of "realism" - intellectual and moral. This type of relations does not promote a change of an intellectual position or comprehension of the subjectivity, since the child, using the language of the adult and based on external impressions about objects, allocates concepts with his/her own maintenance. Cooperation characterizes communication of the child with peers. Such type of relations causes a dilemma of ones position and ideas with another's ones, and therefore influences a comprehension of other points of view existence and appearance of rational elements in logic and ethics. Due to co-operation a gradual relief from egocentrism occurs.

Thus, child egocentrism takes a form of naive idealism aspiring to a reorganisation of the world (Piaget, 1983). Overcoming the child egocentrism is associated with the concept "decentration". Decentration represents an acceptance of the fact that his/her perception of a situation, his/her opinion concerning events or relations (which are taking place in one or another situation) is not absolute, but subjective. Decentration arises on the base of comparison of

different views on the same object. Interaction of the child with other people - peers and adults is also a necessary condition for the occurrence of decentration.

The teenage form of egocentrism appears due to the distribution of probable and hypothetical reasoning. An adolescent passes through this stage when he/she attributes unlimited force to own thinking. Thus, decentration at that point of time is a comprehension and acceptance of real circumstances. Egocentrism increases every time when one faces new situations, new kinds of activity, etc.

Overcoming teenage egocentrism occurs by means of double transformation (Obuhova, 1995). Firstly, in the intellectual sphere it is overcome by means of gradual differentiation among one's thinking and the thinking of others. Secondly, in the affective sphere - it is overcome by the gradual integration of others' feelings into oneself.

All these numerous transformations in cognitive spheres are strongly interrelated to emotional changes. Cognitive development in adolescence and early youth becomes a precondition of emotional development to some extent. Development of formal thinking effects moral development to acquire a new sense; specifically over-personal values and ideals become important for the person (Remshmidt, 1984). This happens only at the age 12-13 or later. Such values are social justice, love, sincerity and freedom. "Due to a combination of emotionally coloured concepts with ideals, and mental constructions with their projection in the future, emotional forces which can become the engine of individual and public transformations are liberated" (p. 106).

Arbitrariness is supposed to be one of the major characteristics of moral behavior (Sadokova, 2001). In authentic moral behavior a person makes a choice under influence of his/her moral beliefs, making effort for self-realization, instead of the imposed will. Arbitrary moral behavior starts to develop at preschool age and, as Leont'ev (1993) stresses, its related to the "first birth of the personality", and only at the age of adolescence does arbitrariness become recognized.

1.1.3 Social Development

In contemporary psychology, moral development is bounded with a *social* development, namely with development of social intelligence and acceptance of social roles. Well-known studies in this field are made by Selman (1980) who bases his theory on the Piaget's ideas. Selman (1980)

believes that acceptance of a role and development of social intelligence are not isolated processes, but connected with all the changes, which occur within psychological ages. The author allocates six stages of the development of interpersonal understanding. I will consider only those, which concern to the adolescence.

At pre-adolescence period (10-12 y.o.) a young person begins to understand interdependence and interconditionality of the various purposes of behavior of different people (Obuhova, 1995). Representations about human communication become more structured, and systematized. At that stage, another person's point of view already can be accepted, i.e. the child understands, that in a situation where two communicate, both are capable to perceive and understand own and the other person's position simultaneously.

The next stage is a stage of social intelligence qualitative systems (12-15 y.o.). Teenagers develop the generalized image of another person, which is shared and supported inside the group, society (Obuhova, 1995). At that stage a young person appears to be under the pressure of values, beliefs, attitudes, which are accepted and shared in his/her social group. In contrast to the previous stage when only dyadic interactions were taken into consideration, at this stage teenager realizes that attitudes may exist at various levels, on various depths of relations. For example, distinctions between attitudes such as love, friendship, company etc. are drawn. This stage of development assumes different levels of human affinity comprehension and ability to study ways of attitude construction at different levels of affinity.

The last, highest stage is a symbolical interactions stage (15th y.o. and older). In this stage an adolescent starts to understand the relativity of social foundations (Obuhova, 1995). The position of the person at that time allows him/her to overcome the restrictions, which are imposed by one or another society. Consequently, the level of tolerance to others' ways of self-expression and self-search raises.

Kohlberg asserts that an important social-cognitive advance in adolescence is the "discovery of society"— understanding how people are related to each other through various institutions of the society, not merely on a face-to-face basis, where all are relatives, friends or well-known to each other (Colby et al., 1987). Adelson and O'Neil (1966, p. 304) state:

With advancing age there is an increasing grasp of the nature and needs of the community. As the youngster begins to understand the structure and functioning of the social world as a system, he begins to understand too the special social institutions within it and their relations

to the whole... Thus the demands of the social order and its constituent institutions, as well as the needs of the public, become matters to be appraised in formulating political choices.

At the period of adolescence a person becomes aware that society is made in terms of a special system of roles, rules, norms, and institutions. Questions of society morals and questions of moral authority become necessarily and keen for the person. How can one organise cooperation relations on a society-wide basis for the mutual benefit? How power, wealth and opportunity are interrelated? Such questions represent the issues of "macro-morality" or societal cooperation, rather than the questions or issues of "micro-morality"—interactions and interrelations with others (Narvaez & Bock, 2002).

1.2. Major Approaches to Moral Development

Modern psychology has several approaches, in which the problem of moral development is being investigated. Among those are *psychoanalysis*, *behaviorism*, *cognitive psychology*, *integrative*, and *cultural-historical approaches*. The last one is based on Vygotskian perspective and activity theory to moral development. It is also useful to emphasize the significance and unity of rational (cognitive) and also emotional and motivational aspects of moral development of the person, stressing moral development as a central point in personal growth.

1.2.1 Psychoanalytical Approach

In the psychoanalytical approach of Freud the process of moral development is considered as installation of moral standards during education. These standards are pawned in "Super-Ego" which is responsible for suppression of pulses of "It". "Super-Ego" is realized as conscience, and, therefore, occurrence of a sense of guilt is possible in the case of non-observance of "Super-Ego" requirements (Freud, 1991). Erikson (1994/1996) assumes that moral standards transform to the child consciousness due to the experience of guilt feeling and as a cause of any anxious feelings. Another point of view on moral standards internalization is that this process is carried out due to identification of the child with his parents and fear of favourite adult loss (Hjelle & Ziegler, 1992). Neumann (as cited in Hjelle & Ziegler, 1992) determines three stages of ethical development:

- 1) Absence of personal and conscious ethical responsibility,

- 2) Personal moral responsibility,
- 3) Identification with ethical values, formation of external personality and replacement of all mentality elements which are incompatible with ethical values.

The mechanism of transition from the first to the second stage is split between two systems of consciousness and unconsciousness, and occurs as a cause to the development of consciousness. Transition from the second to the third stage is carried out by the mechanisms of psychological defence (Hjelle & Ziegler, 1992).

Thus the morals in psychoanalysis is the way of people's relations ordering regulation which promotes balance maintenance in various social attitudes, starting with family relations and finishing with society attitudes in general. The necessity of such form of regulation occurrence is caused, first of all, by instinctive nature of human being, by instincts of a life and death, i.e. sexual and aggressive energy. Culture is addressed to provide the transformation of natural human sexuality and aggression activity. Moral development is a process due to which the primary condition of the child is transformed through the social environmental influences (Sadokova, 2001).

1.2.2 Behavioral Psychology Approach

Eysenck, Skinner and Aronfreed (as cited in Obuhova, 1995) believe that children acquire moral standards due to the system of reinforcements (reward - punishment), and also due to a role models' imitation. Moral behavior is considered as a reaction to the certain stimulus. The moral consciousness is nothing more than reflex that was produced in a certain condition. As a reply to the influence of the certain situations this reflex causes subject to feel anxiety or "alarm". After a while social norm's violation starts to associate with the fear of punishment and pain for the child and it forces him not to break, but to follow these norms. Aronfreed (as cited in Obuhova, 1995) notes that coincidence of an affective state of the child and observation of the behavioral model is the important condition for the further imitative reproduction of this model.

Skinner (as cited in Obuhova, 1995) asserts that development of moral sphere should follow the way of a positive reinforcement.

1.2.3 The "Social Learning Theory" Approach

The author and main representative of the social learning theory, Bandura (1991), stresses the importance of observation and imitation of behavioral samples, which meet moral standards of the society. Through this type of learning the child seizes moral standards which carry out regulating and directing the function of behavior.

Bandura (1991), Mischel and Mischel (1976) stress that moral behavior is influenced by two types of learning experiences: 1) direct tuition, which is based on reward or reinforcement for behaving in certain ways, and punishment for behaving in other ways, and 2) observational learning - by observing other people being rewarded or punished for behaving in certain ways, and then by moral behavior can be learned by imitating rewarded behavior.

1.2.4 Cognitive Approach

Moral as well as intellectual development follows progressive, stage by stage way. Cognitive development guides moral development, and thus moral action are produced on the ground of moral judgments and representations which are based on general moral criteria and corresponding moral values of a person.

1.2.4.1 Theory of Piaget

Piaget (1932/1965) defines morality as "an individual's respect for the rules of social order and his sense of justice," taking into account that justice is "a concern for reciprocity and equality among individuals. Piaget (as cited in Craig, 1992/2000) considers moral development in two passing stages: a stage of moral realism (4-6 y.o. and older) and a stage moral relativism (7 y.o. and older). During the first stage, children consider and keep the rules and norms of behavior, because, instead of abstract principles they are real, indestructible conditions of being and the morals of an act is estimated by its consequences. The second stage is characterized with the notion that rules are created by people on the basis of mutual agreement, and people, if necessary, can change them by making a new arrangement; hence, there is nothing absolutely correct or wrong, and the morals of an act is determined, first of all, by the intentions, instead of its consequences.

The concept is based on the notion that level of cognitive development determines the level of moral development. Piaget (as cited in Craig, 1992/2000) allocates not only genetic relations among moral and intellectual development, but also stresses their internal parallelism.

Further developments on Piaget's views were made within one of the major modern theories of moral development - theory by Kohlberg.

1.2.4.2 Theory of Kohlberg

Kohlberg modifies and elaborates Piaget's theory, and lays the groundwork for the current debate within psychology on moral development. Consistent with Piaget, he proposes that children form ways of thinking with their experience which include understanding of moral concepts such as justice, rights, equality and human welfare. Kohlberg follows the development of moral judgment beyond the ages studied by Piaget, and determines that the process of attaining moral maturity takes longer time and is more gradual than what Piaget proposes.

In 1958 Kohlberg received his degree in psychology after defending the doctoral thesis "*The development of modes of moral thinking and choice in the years 10 to 16*" which evaluated children's responses to the fictional moral dilemma ("Heinz Steals the Drug" dilemma) and later on became one of the most cited unpublished dissertations ever which underlay the theory of moral development. It is possible confidently to affirm that there is no serious psychological research on moral development or moral education, which doesn't include a reference to Kohlberg's theory.

On the basis of experimental research (moral dilemmas solving), Kohlberg (as cited in Craig, 1992/2000) allocates three basic levels of moral judgment development and divides them into six stages. Kohlberg supposes everyone to go through a universal sequence of stages.

At the first, "*pre-conventional*" level a concrete, individual perspective characterises a person's moral judgments.

1st stage) Obedience and punishment orientation. Kohlberg's stage 1 is similar to Piaget's first stage of moral thought. The child assumes that powerful authorities hand down a fixed set of rules, which it is necessary to obey. Orientation is necessary to avoid punishment and obedience

Kohlberg (as cited in Crain, 1992) calls this stage thinking "preconventional" because children still do not speak as members of society, they see morality as something external to themselves, as that which the big older people say they ought to do.

2nd stage) Self-interest orientation. Naive instrumental hedonism: it is necessary to follow the rules to receive compensation or personal benefits.

At this stage children realize that there is not only one right view that is handed down by the authorities. Different persons and individuals have different points of view (Crain, 1992).

The second, "*conventional*" level provides an individual with basic understanding of conventional morality, and already reason comprehending that norms and conventions are crucial to uphold society. Morality at that level is acting in accordance with what society defines as right:

3d stage) Interpersonal accord and conformity. Children who are usually entering their teens at this stage - see morality as more than simple deals. Orientation to good relations and other people approval maintenance: it is necessary to obey the rules to avoid disapproval or hostility of others. At this stage, being moral means keeping mutual relationships (trust, loyalty, respect, and gratitude). The perspective is that of the local community or family.

4th stage) Social system and conscience. Authority and law supporting morals: it is necessary to obey the rules to avoid condemnation on the part of legitimate authorities and the subsequent feeling of fault. Many adults do not advance beyond stage 3 or 4.

The third, "*post-conventional*" level is characterized by "prior to society" reasoning perspective: reasons are based on the principles, which underlie rules and norms, but reject a uniform application of a rule or norm.

5th stage) Social contract orientation. Public treaty, individual rights and democratically accepted law morals: it is necessary to obey the laws of the given country to achieve general welfare. This Stage 5 is the last stage of the Kohlberg's theory, which has received substantial empirical support. These 5 stages (1-5) have been defined and empirically supported by findings from longitudinal and cross-cultural research (Power, Higgins, & Kohlberg, 1989).

6th stage) Universal ethical principles. This stage remains as a theoretical endpoint, which rationally follows from the previous 5 stages. Stage 6's reasoning is fully developed intellectually. This last level of moral judgement includes reasoning rooted in the ethical fairness principles from which moral laws would be devised. These laws are evaluated in terms of their coherence with basic principles of fairness rather than upheld merely on the basis of their place within an existing social order. Thus, there is an understanding, that elements of morality such as regard for life and human welfare transcend particular cultures and societies and are to be upheld irrespective of other conventions or normative obligations. The person is an independent subject of own free moral choice and this choice follows universal ethical principles.

Kohlberg based on purely theoretical considerations later added a seventh moral stage - *cosmic ethical principle orientation*. In this stage what is "right" is defined in terms of a sense of

"cosmic unity" and that stage asks the question "*Why be moral?*", but not the question "*How to be moral?*" (Kohlberg & Ryncarz, 1990). This seventh, highest stage addresses morals that is based on strong religious convictions.

Being a follower of Piaget, Kohlberg's theoretical positions reflect those of his mentor. Kohlberg within his theory follows same criteria, which Piaget proposes true mental stages to meet (Crain, 1992). These criteria are:

- 1) *Qualitative differences.* Kohlberg's moral stages differ qualitatively from one another. For instance, moral stage 1, focusing on obedience to authority, differs from moral stage 2, which argues that a person is free to do what he/she wishes to do. And at the same time these two stages are not really different along any quantitative dimension.
- 2) *Structured wholes.* Kohlberg supposes that stages are not just isolated responses but represent general patterns of moral thought that will consistently show up across various issues.
- 3) *Invariant sequence of the stages.* Kohlberg believes that children always go from moral stage 1 to moral stage 2 to moral stage 3 etc. Stages cannot be skipped or passed in a mixed-up order. It is not necessary that a person reaches the highest stages.
- 4) *Hierarchic integration.* Kohlberg states that people do not lose their insights from the previous moral stages, but integrate them into new, broader frameworks and represent them in higher stages. For instance, adolescents at moral stage 4 can understand moral 3d stage argumentation, but they will regard such argumentation to more extended considerations.
- 5) *Universal sequence.* Kohlberg stresses that his moral stage sequence is universal and will be the same in all culture.

Kohlberg maintains that his moral stages are neither the product of maturation, nor the product of socialization. Parents, teachers or other socializing agents do not directly teach new forms of thinking- they don't teach each new moral stage structure in its particular place in a sequence of other stages. Stages replace one another due to cognitive activity, thinking and arguing about moral dilemmas. Social experience advances the development by stimulating our mental processes. During discussions people try to find out if their own views conflict with those of others between the moral positions. Thus, people are motivated to come up with new, more comprehensive and broader positions at a new higher stage (Crain, 1992).

Further Kohlberg reworked on his concept of moral development. He recognized inconsistency of unequivocal sequence in moral development. Kohlberg agreed that his model of moral development could not be a direct basis of moral education or a practical guidance for the teachers (Crain, 1992).

However, generally, Kohlberg's theory of moral development is a rational model which rests on the condition that people make moral judgements, proceeding from the current level of development. Kohlberg supposes moral judgements to be homogeneous and organized as a complete structure. He believes that moral judgements represent highly coherent system, which can be described by one of his six moral stages or as a last resort, by two adjacent stages. Kohlberg argues that people operate with moral judgements, within the limits of the current stage. By determining a stage of moral judgement, it is possible to predict how the person will interpret or solve all moral problems in a real life. Kohlberg's model considers people as rational thinkers, which are motivated to find the right decision for moral dilemma evolving from all their cognitive abilities. Though Kohlberg (1963) confirms, that the high level of moral judgements does not guarantee a high level of moral behavior, he believes that it is an essential precondition.

Kohlberg's scale is linked with moral thinking, and *not* with moral action or moral behavior (Crain, 1992). Probably, high correlation between moral judgment and moral action can't be found because a person who has capacities to talk at a high moral level doesn't necessarily behave accordingly. Due to the assumption that stages increasingly employ more stable and general standards, Kohlberg assumes that moral behavior is more consistent, reliable and responsible on higher stages: moral stage 3 provides the decisions which are based on others' feelings, which are unstable and can vary, and moral stage connects to stable rules and laws.

Kohlberg (as cited in Crain, 1992) regards moral stages to other forms of cognition. Initially Kohlberg analyses moral stages in terms of their underlying cognitive structures and searches for relative parallels in logical and social thought. For this purpose, moral stages are analysed in terms of implicit role-taking capacities, namely to take into account, views of others. By interaction with each other, children learn that views could differ and they learn how to coordinate with each other in cooperative behavior. By discussing problems and resolving contradictions, they come to conclusion as to what is *fair* and what is *not*.

Despite the fact that the moral stages theory of Kohlberg still remain as a significant psychological model for moral development and moral growth, there have been both critics and controversies. Hogan (as cited in Crain, 1992) arguing about postconventional morality, for

example, stresses that it is dangerous for people to place their own principles above society and the law. Simpson (as cited in Crain, 1992), for example, stresses that Kohlberg's moral stages are culturally biased and a stage model, which is based on the Western philosophical tradition that was applied to non-Western cultures without taking into account the extent, to which they have different moral outlooks. Gibbs, Basinger and Fuller (1992) stress that researchers cannot reliably separate and differentiate Stages 5 and 6, namely the post-conventional stages. Due to the research method for moral judgments like dilemmas reasoning, invented by Kohlberg we obviously lay down the examinee in deficiency of information. It is known, that the process of behavior reasons attributed in this case is carried out on the basis of self experience or on the basis of the analysis of own motives assumed in similar situation (Andreeva, 1999).

1.2.4.3 Dual Aspect Theory

"Dual aspect theory" (as a core aspect for constructing the Lind's Moral Judgment Test) states that for a comprehensive description of moral behavior, both affective and cognitive properties need to be considered (Lind, 2000). Such theory forms the background for research of such moral psychologists as Piaget, Kohlberg and Lind. The affective aspect informs us about the direction or orientation of human behavior, and the cognitive aspect like its structure and organization. Both aspects are needed to achieve a comprehensive description of human action and each contributes in a unique way to the prediction of external criteria. A full description of a person's moral behavior involves a) the moral ideals and principles that informs it, and b) the cognitive capacities that a person has when applying these ideals and principles in his or her decision-making processes (Lind, 2000).

1.2.4.4 Domain Theory

In domain theory, a differentiation between the child's developing concepts of *morality* and other domain of social knowledge - *social convention* is made. These two domains appear from the child's attempts to account contrasting forms of social experience associated with these two perspectives of social knowledge (Turiel, 1983).

Turiel defines three main domains of social knowledge, rules and norms, distinguished by meaning, goal, and development: moral domain, socio-conventional domain and personal domain (Turiel, 1983; Turiel, Killen, & Helwig, 1987). Moral domain represents the highest level of regulation, based on principles of fairness and care for others. Main norms of moral domain are the physical

safety and health of the people; fairness, which is based on equality of rights and privileges; and not to cause emotional distress and norms of prosocial behavior. Such norms are more or less generally accepted and prescribed by societies. Socio-conventional domain regulate the ways of human behavior in society (behavioral rules at school, on the lessons and in recreation, etiquettes, regulations of clothing, gender relations etc.) and are specific for each society and different social groups. Personal domain defines individual behavior and is elaborated by personality itself and concerned with those issues which should not be socially regulated; i.e., matters of personal preferences and tastes.

Acquirement of domains happens in the following order: from personal domain, distinguished by personality itself, to definition of conventional norms and finally, reach the moral domain. Even at the age of young adolescence, pupils are able to differentiate these three domains, recognizing its importance and obligatory (Nucci, 1981).

1.2.5 Integrative Approach to Morality

Significant number of researches, which have been carried out after Kohlberg was aimed on search not only about rational sources of moral development of the person, but also about motivational, emotional and personality components (e.g., Gilligan, 1982; Eisenberg, 1982; Rest, 1986). Attempts to overcome one-sidedness of cognitive approach and to consider moral development in unity and interconditionalities of motivational, affective and cognitive components are made in frameworks of integrative approach.

1.2.5.1 Gilligan's Approach to Moral Orientation

Kohlberg has also been criticized by psychologists, including women, for various reasons (Kohlberg's study subjects, for example, were males), and Kohlberg himself reviews his findings and acknowledges the importance of some of his critics' arguments (Zimbardo, 1985). One of his critics is Gilligan (1982), and she argues that there are two orientations of moral reasoning: moral orientation of care (concern with responsibility, care and compassion for others, and prevention of hurt in relationships) and a moral orientation of justice (concern with equality, fairness etc.). And in this sense, authors such as Gilligan (1982) and Lyons (1983) argue that women consider care, kindness and relationships, namely care-oriented morals, to be more important than the male virtues of justice and fairness orientation of morals.

Within Gilligan's (as cited in Belknap, 2000) theoretical background, she provides three levels of female moral development: 1. *Level of self-interest* (oriented at those, who can satisfy her needs, being selfish to being responsible); 2. *Level of self-sacrifice* (woman adopts societal values and social membership, own needs are satisfied only after satisfaction of others needs); and 3. *Level of post-conventional thinking* (needs of the self must be uncovered, own decisions are made on the base of self-made conscious choice, a person begins to consider about one self and other consequences).

1.2.5.2 Eisenberg's Prosocial Reasoning Theory

The core of prosocial reasoning theory by Eisenberg (1982) is a development of altruistic behavior. In this approach, Eisenberg tries to integrate achievements of cognitive approach, behavioral approaches and researches on the emotional factor of moral behavior. Each act of prosocial behavior is counted in correlation to cognitive and emotional components.

Eisenberg (1986) defines four cognitive processes which define altruistic behavior: 1) perception of other people as "good" ones, and itself as a "kind" person; 2) perception of altruistic motives of own behavior, aimed at benefits and weal of others, realizing a principle of care; 3) correct estimation of subject's prosocial behavior of others needs of support and help and real necessity of such help, and 4) the process of moral decision-making.

In comparison with Kohlberg's stages of moral development Eisenberg (1982, 1986) introduces the periodization of prosocial reasoning development, which includes 5 levels:

- 1) *self-centered*, when the child's main concern is for itself, its own interests, but not moral norms and that stage takes place when the child grows to an of 7 years;
- 2) *needs-oriented* – on that stage (from 7 to 11 y.o) the child considers helping others, but still experience guilt when help is not given, doesn't provide any reflexive behavior or verbal expression of empathy;
- 3) *approval-orientation*, subject (11-14 y.o.) most likely to help others if such behavior could be rewarded with praise or approval, following the stereotypes of "good/bad man" and "right/wrong" behavior;
- 4) *empathic* – in this level (12 y.o. and older) the child's sympathy behavior appears in regard to people in need, he/she is concerned to do mostly what is right, and feels guilt when help is not given;
- 5) *internalized* – the behavior of adolescent (16 y.o. and older) is totally dependent on internalized values, norms, rights and beliefs of equality among people.

1.2.5.3 Minnesota Approach. The Four-Component Theory

Research on personality moral development has to be based on integral approach to genetic and functional relations of all moral act components. Four Component Model (FCM) bases on critical theoretical analysis of moral development and on the notion that moral reasoning alone is insufficient to produce moral behavior (Rest, Narvaez, Bebeau, & Thoma, 1999). According to this theory, the structure of moral behavior includes 4 components: moral sensitivity, moral judgment, moral motivation and moral character.

The first component of moral behavior structure - *moral sensitivity*, helps to interpret the situation as moral one. Moral sensitivity is comprehension of influence of ones behavior on others (Rest, 1986, 1994). Such comprehension means knowledge of participants of moral dilemma, planning possible ways of behavior, and knowledge of probable influence of action on different participants of moral dilemma.

The second component of moral behavior structure, *moral judgment* – judgement of the available actions that are most justified. Moral judgement enables understanding other’s behavior, reasons of his/her behavior and moral choice grounding (Rest, 1986, 1994; Myyra, 2003).

Third component - *moral motivation* is defined by hierarchy of personality values. The function of moral motivation is prioritising moral over other significant concerns and to choose among competitive values, the one which would define the behavior and correspond with moral ideal (Rest, 1986).

And the final, forth component, *moral character* derives an ability to construct and implement actions that service the moral choice. Perception of situation, taking into account norms and values of its participants, possible consequences of ones behavior (high moral sensitivity), moral judgement of high order, adequate moral motivation with sincere wish to help could appear insufficient for behaving prosocially. Readiness, ability to follow and being responsible for accepted plan of behavior, to resist social pressure – these are necessary personal characteristics of moral act’ subject, defined as moral character by the author (Rest, 1986, 1994).

Rest (1994) specifies that process of moral development can’t be described in terms of rigid sequence of qualitatively different stages or as degree of quantitatively reference with level of cognitive structure development. Moral decision varies in accordance with a certain domain and can’t be rigidly attached to a certain moral stage or a transitional stage.

1.2.5.4 Personality Theory of Moral Development

Heider (as cited in Solomatina, 1992) bases on the personality moral development theory and on the "naive analysis of action" (i.e. on the analysis of a first-hand experience) and allocates three factors influencing the outcome of an action:

- 1) Intentions of the person,
- 2) Personality factors,
- 3) Environment effect.

Thus success of moral conscious development is dependent on personal responsibility reduction and increase of external forces attribution to any event. Following levels of the attributive responsibility are defined by Heider (as cited in Solomatina, 1992):

- 1) *Responsibility of association*. The person bears the responsibility for any outcome to which he/she is connected;
- 2) *Causal responsibility without foreseeability*. The person is responsible for everything, if he/she was the reason for the present state of affairs;
- 3) *Causal responsibility with foreseeability*. The person is responsible for those outcomes, which could be expected, independent on whether he/she has made it intentionally or not;
- 4) *Intentional responsibility*. The responsibility only for the intentional outcomes;
- 5) *Justifiable responsibility*. The person is responsible only for the intentional outcomes, which are not compelled by the environment.

1.2.5.5 Theory of Attribution of Responsibility

Based on Piaget, Kohlberg and Heider's theories, Helkama (2004), considers the problem of moral development in connection with an acceptance of responsibility and freedom of subject's choice, and investigates a semantic field of responsibility and its conformity to Kohlberg's levels of moral development. The thorough mechanism of this development considers the process adequate to the mechanism of "comprehension", i.e. the developmental mechanism of higher forms of moral comprehension within practical activities with their subsequent transformation to the plan of theoretical judgments. On the basis of the received data the conclusion has been obtained that, the higher the level of moral consciousness is, the higher value is attributed to life in comparison with obligations (Helkama, 2004).

Helkama (2004) asserts that development of responsibility is based on the development of its two aspects - debt and freedom. The initial stage of development includes differentiation of personal and external causality as a basis of responsibility attribution development. The final stage of responsibility attribution is characterized by complication of the debt, increase of a moral autonomy, a detachment of the responsibility from fault and punishment. The necessary condition of responsibility development is a change of social prospect (in sense of "memberships" in public institutes, but unessential in real functioning as a certain social role).

1.2.5.6 Social Intuitionist Approach

Kohlberg (as cited in Haidt, 2001) supposes moral force of the person to have a cognitive basis. Affect can be involved in the process of moral decision-making, but affect itself is not moral and also not immoral. When emotional impulse is directed aside morals, it (impulse) is moral and if not then this impulse is not moral. But the process of moral decision-making is in general cognitive itself.

Haidt (2001) states a hypothesis that moral judgment (which is estimated with an aid of dilemmas method), in greater degree is determined by moral intuition, instead of moral consciousness. Thus it has been assumed, that moral thinking "turns on" at times when it is necessary to convince other people of correctness of own judgment, and frequently such beliefs have affective charge. On the other hand, emotional factors and self-regulation define moral actions more often. No less important is the assumption that moral reflection follows already made moral judgments.

While investigating moral development, one should not be limited only with studying moral consciousness, but also take into consideration, and even give a priority to intuitive and emotional processes (Haidt, 2001).

1.2.6 Cultural-Historical Approach

Many psychologists, based on Vygotskian perspective and activity theory address the problem of moral development. Problems of moral development are examined in works of Abulhanova-Slavskaja (2000), Asmolov (1979), Bozhovich (1968), Bratus (1982, 1985), Elkonin (1960, 1989), Feldstein (1996), Leont'ev (1974, 1993), Petorvsky (1999), Rubinstein (1989), Subbotsky (1978, 1979), Vygotsky (1984), Yakobson (1979, 1984) etc. Works of these and many

other researchers created the scientific base for research on moral development as a central point in personal growth.

The problem of moral development is considered as a process of socio-moral norms, behavioral samples and standards acquisition (Bozhovich, 1968; Gal'perin, 1998; Leont'ev, 1974, 1993; Vygotsky, 1984; Jakobson, 1979, 1984, etc.). Such acquisition is carried out through the child activity, comprehension, conscious acceptance, experience and personal senses achievement so that behavioral samples become internal regulators (motives) of behavior. Moral development is considered as a development of ethical samples during acquisition of adult behavioral samples and adjustable by moral standards of interpersonal relations with peers (Elkonin & Dragunova, 1967).

Any purposeful behavior or mental activity is initiated by needs. Development of certain needs of the person represents stimulation of different forms of activity. Needs act as a special condition of the personality due to which regulation of behavior is carried out and the direction of thinking, feeling and will of the person are determined. Motives execute the function of meaning development, i.e. assign personal sense to the reality reflected in individual consciousness. Motives carry out the function of monitoring not directly, but through the mechanism of emotional correction of behavior: emotions estimate personal sense of event occurrence and in a case of inconformity of this sense to motives, they change the general orientation of activity (Zinchenko & Morgunov, 1994).

In the cultural-historical paradigm the process of moral consciousness formation is understood as an active acquisition (appropriation) of socio-cultural experience. Moral development is understood as a process of moral samples and standards acquisition under the guidance of adult (Bozhovich, 1968). Formation of moral, intellectual, and aesthetical feelings occurs during the learning of social values, requirements, norms and ideals under which certain conditions can be "appropriated" and become an internal "property" of the person, in frames of behavioral motives. As a result of such an acquisition a child (adolescent) achieves a new system of measures, standards and values, with which he can estimate observable phenomena as emotionally attractive or repellent, as kind or malicious, as beautiful or ugly.

At the preschool age certain moral instances appear. They include social requirements (or moral knowledge) with the positive emotional experiences accepted by a child (Sadokova, 2001). At the teen-age the value of adult for learning is gradually reduced and the teenager turns to peers. Adolescents spend twice more time with peers than with parents or other adults (Csikszentmihalyi

& Larson, 1974), and adolescent peer groups function with much less adult influence and supervision, in contrast to childhood peer groups, for example (Brown, 1990). As a result of intimate-personal contact with peers the teenager acquires so-called "moral - ethical code" which is the major element in development of consciousness during this period.

The teenager becomes the full subject of moral self-control. Moral representations orientate behavior, activity and attitudes of teenagers, acting as a basis of self-education. At preschool age these are internal moral instances, which are formed on the basis of aspiration of the child to meet requirements and expectations of adults. Young adolescents have moral ideals in the form of mental state of the person, and older adolescents and adults have moral outlook as hierarchy of the generalized moral knowledge that allows to regulate ones behavior consciously. Each of the functional systems represents unity of cognitive and affective components. In Bozhovich and Konnikova' (1975) opinion, a moral ideal of the teenager it not only an ethical category, but an emotionally painted image accepted as a regulator of own behavior and criterion for estimation of other peoples behavior.

Bozhovich (1968) allocates special functional systems that make essence of moral development at each stage of growth. Moral development is considered as a process of formation of positive features of the personality during formation of the moral actions oriented on adult's sample of behavior. Moral development is also considered as a process of learning the behavioral samples, which are set by a society during the child activity and communication with adults and peers As a result these samples become regulators, motivators of behavior (Bozhovich & Konnikova, 1975; Karpova & Lysyuk, 1986).

Yakobson (1984) considers process of moral development as a process of becoming a subject of moral self-control.

Moral self-control includes the following components:

- 1) Presence of moral regulation criteria and knowledge of them,
- 2) Correlation of actual behavior with its estimation criteria,
- 3) Self-estimation in comparison with results of such correlation;
- 4) Imposing of corresponding sanctions.

Subbotsky (1983) distinguishes two lines of child moral development: the development of morally pragmatical behavior under influence of external control and development of moral-disinterested behavior on the basis of a moral self-estimation. Yakobson (1984) and Subbotsky (1979) stress, that the role of a child within social system of relations has a special value and its

change lead to the change of a situation's meaning and consequently a transition from learned to applied moral motives. Subbotsky (1979) also was engaged in the issues of child altruistic behavior development. Results of his experiment have shown that changes in a child attitude intensify not just with his/her knowledge of morally and socially approved behavior samples, but also constantly provides him/her with examples of altruistic acts. It has been shown that moral choice can differ essentially from judgement about this choice. The reason of that lays in motives competition. Imagination plays an important part at preschool age, and allows the child to extend the limits of a concrete situation and to carry out an emotional anticipation of result of an action (Zaporozhets & Neverovich, 1986). Thus the child is already capable to compare "due" and "desirable". As a result an affective generalization appears which enables to judge ones moral experiences. In that way feelings cease to be associated with a certain situation, but achieve the semantic maintenance. During the preschool period children start to experience moral feelings like compassion, guilt and shame. Gradually moral feelings start to turn into inducing motives of behavior.

Role of motivation and its multilevel structure, its function in sense formation, and its role in formation of personal orientations are discussed by Zinchenko and Morgunov (1994), Bozhovich and Konnikova (1975), Bratus (1982). Transformation of achieved moral standards in development of moral motivation and system of moral needs during activity are examined by Leont'ev (1974).

Titarenko and Nikolaicheva (1994) allocate basic attributes of moral values: *prescriptiveness* (validity); *categoriality* (realization of norms irrespective of whether it is declined to recognize them as desirable or undesirable to itself); *universality* (concern to each person without exception though there is a universal and community distinctions); *specificity of sanctions* (moral sanctions operate within the framework of the dispersed social control, public opinion, mechanisms of psychological self-control); and a *priority of moral values and norms* in case of their conflict with other norms.

In the frame of the cultural-historical paradigm the problem of moral development is also studied in a context of outlook and beliefs of the person (Zalessky, 1994). Hierarchization of activities and their motives is carried out with the support of a special mechanism - world outlook, as a system formation, capable to express not only the certain attitudes of the person to the surrounding reality, but also to induce, direct and organize activity.

Brushlinsky (1995) specifies that at different stages of life span development the subject is formed by activity and communication, creating unity of various, frequently inconsistent motives and feelings. The person whose moral principles become the motives, which determine behavior (while universal ethical principles lead this person's hierarchy of values) is morally mature. Moral maturity means a priority of moral values of the person above other motives.

As stated before the "new birth" of a person occurs at the teen-age. According to Leont'ev (as cited in Solomatina, 1992) during this period a hierarchization of installations and motives occurs and that can be attributed to the process of moral development.

Karpova and Lysyuk (1986) specify, that for measuring the level of moral norms development it is necessary to estimate emotional experiences up to, in a course and after activity; each concrete act should be examined in general system of persons' behavior. Emotional experience is a concrete psychological expression of activity motives that is an expression of the reason why the child carries out or doesn't carry a moral norm.

Vasina (1993) studied values orientations of the youths. Teenagers, both young men and women aged from 13-24 years took part in that research. It has been shown that the aspiration of self-realization in communication and creative activity is dominative in the general structure of values' orientations. Also, the following gender distinctions were found: girls were more oriented on traditional terminal values; construction and development of close mutual relations, and young men were more orientated on instrumental values and self-assertion.

In doctoral thesis of Chorosova (1996) psychological conditions and opportunities of child moral behavior development in different stages of adolescence are studied. One of the main concepts of that research is the construct "partiality – objectivity" in relation to the self and the others. The research bases on regulations that objective (impartial) relation to another person is a component of moral behavior. As a result of research carried out by Chorosova (1996) it was found, that from age of 10 to 15 the number of children, who are ready to break moral norms for the sake of schoolmates and friends grows. Most "partial" group of teenagers was aged by 12-13 y.o.

A perspective methodological direction of moral psychology should become consideration of moral development of the person through "experience" of a moral act. It is wrong to examine only cognitive-declarative aspect of moral development of the person, from the Bratus' (1985) point of view. The moral belief should be always provided with "gold reserves" of corresponding personal sense, affective, emotionally experienced relation to life; otherwise it reduces to a level of

simple declaration, moreover, can become nothing but window-dressing of absolutely other aspirations.

In the context of moral development a concept of moral action has to be examined more precisely.

Research on moral behavior of preschool children (Karabanova & Podolskij, 2003) has shown that it is necessary to separate such concepts like prosocial conventional and moral behavior. The first (prosocial conventional) can be defined as a *reproduction of adult authoritative behavior in a corresponding situation*.

Moral actions (*act of moral behavior*), as a counter to conventional actions, are based on a subject's orientation in sphere of moral relevance, where the choice of behavior alternatives actually an essential feature of behavior (Gal'perin, 1998). Distinction criteria between moral and prosocial behavior is the preference of moral and conventional norms in a choice of purposes and ways of behavior (Karabanova & Podolskij, 2003).

The following basic features of moral action have to be emphasized (Gal'perin, 1998):

- Necessity to have a choice of type of behavior while solving problems on interpersonal interaction;
- The contradiction among motivation and requirements of a problem situation' participants or contradiction on the basis of subject's motivation and requirements dissonance;
- Subjects' orientation on "the importance for others" in terms of morality, as the criteria of a problem situation behavior choice.

These three components taken together build the structure of a *moral dilemma*.

Teenagers in their real-life practice discover the consequences and importance of moral action for the society. Moral actions define the process of moral development which supplies teenagers with the "tools" and the orientation schema for the moral dilemma analysis of situations they meet in everyday life: in school, in the family, in relations with peers.

Thus, in cultural-historical psychology moral development of the person is considered as a process that includes cognitive, emotional and motivational components, which are all inseparably linked with each other.

In this part of the work most important approaches to moral development made in frameworks of different psychological approaches were stressed. The importance to study the nature of moral development in its duality – both in cognitive and emotional components, was

stressed. This assumption is of great importance, but another question – *"How could emotions, and especially moral emotions, affect moral behavior?"* has to be taken into consideration as well.

1.3 Moral Emotions. Empathy

1.3.1 Cognition and Affect. Emotions and Moral Reasoning

Throughout the long history of moral psychology the focus has generally been made on moral reasoning, while the moral emotions have been regarded with some suspicion (Solomon, 1993). Due to the fact that Kohlberg had large influence on moral psychology, this field of science has had to come to terms with the philosophical biases that came alongside Kohlberg's (1984) approach. So, Kant (as cited in Sherman, 1997) believed, that influence of emotions – is a "poisoning" process to moral judgment, firstly, because emotions contradict process of judgment. The notion that emotions by their nature are irrational was not new with Kant. Aristotle (as cited in Sherman, 1997) had a similar metaphorical conception of cognition and emotion: anger seems to listen to reason, but to hear wrong, like hasty servants, who run off before they have heard everything their master tells them, and fail to do what they were ordered, or like dogs, which bark as soon as there is a knock without waiting to see if the visitor is a friend. Kant (as cited in Sherman, 1997) develops criticism on the specific problems related to moral judgments and decision-making. He treated influence of emotions as not moral - at the best and immoral - at the worst. The criticism formulated by Kant, has found its rebirth in the works of modern writers (e.g., Nagel, 1970), and, subsequently, had a great influence on moral psychology and philosophy.

Basing on the Gross' works Pizzaro (2001) tries to deny above opinion with three statements:

- People are endowed with the capacity to regulate our emotions, and on many occasions are able to effectively induce or suppress emotional reactions through a variety of tactics, allowing us to recruit emotions when appropriate, and lending flexibility to our emotional lives (Gross, 1999);
- Emotions - not an empty reflection deprived of the rational basis, they reflect the anxieties, which follow our moral beliefs and principles;

- Instead of negative influence on a process of reasoning, emotions can basically stimulate this process, operating as the central part by focusing our attention and cognitive activity on a task.

In general, these characteristics of emotions, which prove their significance for the process of moral decision-making, are already serious basis for the inclusion of emotions in process of moral judgment formation.

Since the middle 80s the problem of moral emotions started to be of high interest to the increasing number of researchers from different fields of psychological science. So, Pizzaro (2001) confirms the notion of emotions and moral judgments interrelations, and concentrates on empathy, as the most significant moral emotion. Researchers allocate such moral emotions like feeling of guilty, shame (Eisenberg, 2000) irritation, confusion, compassion (Haidt, 2003), but empathy is supposed to be one of most significant because it generally causes concern for the welfare of others, particularly in situations where others are suffering. Developmental psychologists (Eisenberg, 2002; Hoffman, 2000), and social psychologists (Betson, 1991) examine empathy as significant psychological construct, which is personally necessary for the process of moral decision-making.

1.3.2 Defining Empathy. Types of Empathy

Presently empathy is defined by many researchers as "... the degree to which individuals feel emotional or physical distress when encountering a distressed other, as measured by self-report, independent judges, or physiological indicators of distress" (Pizarro, 2001, p.359).

It is important to make distinctions between "empathy" and "sympathy" concepts: empathy differs from sympathy in that the former is a state of feeling something *with* someone whereas the latter is a state of feeling something *for* someone. Thus, if you have empathy with someone, then you feel an emotion with this person, in the sense that you feel an emotion, which is similar to an emotion that he/she is feeling. If, on the other hand, you feel sympathy for someone, then you feel some kind of positive concern for him. While having empathy with someone, it is not incompatible with having sympathy for this person, empathy is nevertheless said to differ from sympathy in that it is not necessary to feel a concern for a person in order to have empathy with him (Snow, 2000).

Two types of empathy are distinguished (Pizarro, 2001):

- 1) *Cognitive empathy* (which is referred to perspective-taking or role taking), is the ability to understand the point of view of another person, and is considered as an important achievement of cognitive development;
- 2) *Affective empathy* is the vicarious emotional response (that very often takes place as a result cognitive empathy, of perspective-taking) that occurs when exposed to the emotions of another.

In modern researches the "affective" meaning often covers the concept of empathy as a whole.

Empathy involves imagining the emotion of someone else without being in the corresponding emotional state (Meyers, 1994). For example, one can easily imagine the feeling of an upset person and in some sense apprehending his sadness, while being totally happy, or at least one doesn't have to be sad. Imagining someone else's emotion or emotional state does not entail that you are in the same kind of emotional state.

There are several concepts that underline opposite interdependence between emotions and empathy.

Eisenberg (2002) defines empathy as "an affective response that stems from the apprehension or comprehension of another's emotional state or condition, and that is similar to what the other person is feeling or would be expected to feel" (p. 135).

To empathize successfully one has to have the current thoughts and feelings of the other person, to follow his current experience. In the contemporary literature on empathy (e.g., Goldie, 2000; Harold, 2000; Hoffman, 2000; etc.), there are several main explanations of how a person can acquire an empathetic emotion:

- 1) *Firstly*, as a result of having been exposed to an expression of a similar emotion in the other person, a person can feel empathy;
- 2) *Secondly*, a person feels an empathetic emotion as a result of having learned about another person's situation;
- 3) *Thirdly*, when a person has entertained an idea of the situation of another one, he/she can achieve empathy.

Besides that it is important to notice, that presence of moral emotions, empathy, in particular, is determined by the moral beliefs and norms of the person (Pizarro, 2001). Accordingly, experience and feelings of the person can reflect moral priorities of the person. This

fact highly expands the conception of empathy, as being only reflecting, non-cognitive structure before.

1.3.3 Sources of Empathy

As it was mentioned before cognitive empathy enables to understand and accept other persons' situation and his position. Possible cognitive characteristics which predetermine occurrence of empathy are (Pizzaro, 2001):

- 1) *Similarity*. In the literature empathy frequently is described through similarity of experience. Philosopher David Hume (1751/1957) assumed that people, who have similar experience, are capable to feel other people, imagining being in the other person's place. Empathy is expressed more when it arises in relation to people, whom we feel similar to us, or to those who are in similar situations that we have once gone through (Batson, Turk, Shaw, & Klein, 1995). Empathy is more difficult to elicit for others, causing Hoffman (1987) to refer to this as a potential "empathic bias".
- 2) *Attribution of blame*. Secondly, individuals are less likely to feel empathy for targets to which they have attributed blame for their predicament, and conversely, more empathy for targets they perceive as innocent.
- 3) *Perspective-taking*. Engaging the individual in the process of imagining themselves to be in the shoes of another one, perceived similarities increase and personal attributions change. Empathetic response should occur, for example, more easily when there are vivid distress cues available. Thus, reading about a target in distress seems to be less efficient than seeing them in distress, because of the absence of these cues (Pizzaro, 2001). Perspective-taking may increase the amount of salient features of the target, features that may not be physically present, by evoking vivid images of the target in distress (like it was mentioned before). Furthermore, perspective-taking may also work in one of the two distinct ways, thus increasing its availability: by causing individuals to imagine themselves to be in the target's position or by causing them to imagine how the other may be feeling (Pizzaro, 2001).

1.3.4 Functions of Empathy

Hoffman (2000) studies empathy as associated to altruism and morality in a wide sense. He assumes that empathy and moral principles complement each other in order to produce moral behavior. Empathic feelings and moral principles seem to complement each other in order to produce moral behavior. Empathy is the motivation for acting morally (Batson, 1991; Hoffman, 2000) and without empathy, moral principles seem to lack the motivating force for people to care for others (Hoffman, 2000). Thus *motivation function* of empathy for moral behavior could be defined.

Summing up, it is possible to define empathy as a comprehension of subject's (in relation to whom the empathy has been acquired) feelings and the situation, in which he is involved in.

Due to the virtue that situations, which contain moral dilemma, are based on a choice and, accordingly, sacrifice for the welfare of something, empathy allows to be plunged into experiences of another person, which is a very meaningful sign of a certain moral problem presence. Empathizing with the subject (feeling with him/her), induces us to take into account those moral principles, which are necessary for making correct decision in a situation of a moral choice (*signal* and *informative function* of empathy). From the Thompson's (2001) point of view empathy is needed to recognize the situation as moral one.

In this part of the work it was emphasized the importance of empathy for a situation of a moral choice and its three functions: signal, informative and motivating. Qualitative and valuable research on moral development supposes working out of a method, which would create preconditions for empathy occurring, and subsequently objectivises entire moral problem contents, namely present realistic, emotionally colored and motivating for decision-making in a situation which includes moral dilemma.

And now we are close to the key concept of the work, to the concept *moral competence*.

1.4 Competence and Moral Competence

1.4.1 Definition of Competence. Approaches to Competence

To define the "*moral competence*" concept one has to understand how the term "*competence*" is defined in general.

Generally, people use such terms as "competence" or "competent person" in their everyday language without being able to precisely define or clearly differentiate them. The use of these terms as synonyms is reflected in dictionary entries as well, for example, competence is defined in the Webster's dictionary as "fitness or ability". Words given as synonyms or related terms are "capability", "capacity", "efficiency", "proficiency", and "skill". Competence in different subjects of science like philosophy, psychology, linguistics, sociology for instance still yields a wide variety of definitions. Nonetheless, in all disciplines listed above, competence is interpreted as a roughly specialized system of abilities, proficiencies, or skills that are necessary to reach a specific task or goal (Weinert, 2001).

The wide variety of meanings given to the concept of competence is seen not only in its many uses, but also in the construction of terminology to express competence, such as media competence, business competence, age competence, and also cognitive, social, motivational, personal. It is not possible to discern or infer a coherent theory out of these many uses. "There is no basis for a theoretically grounded definition or classification of competence from the seemingly endless inventory of the ways the term competence is used" (Weinert, 2001, p.46).

Hence one can assume that definitions of competence posed by researchers, grounded in a certain theoretical basis, can reflect only their subjective view on the object studied. The same "conditions" are related to the morality and to the problem of moral competence specifically.

In this work the competence will be defined as the ability to reason and judge, determined by knowledge and comprehension of certain subject.

1.4.2 Reflection and Its Impact on the Moral Domain

Certainly, reflection, as a "process of mental self-perception" (Petrovsky & Jaroshevsky, 1990) is of a great importance in competence development. Reflection is divided into *personal* and

intellectual domains (Semenov & Stepanov, 1983). Intellectual reflection assumes several functions: determination and aiming, questioning, estimation, prediction and confirmation. Personal reflection plays a role of self-esteem and motivation (Semenov & Stepanov, 1983). The reflexive system can be defined as a "system, which is able to describe one's behavior and during further actions use obtained description as certain rules, principles, and algorithms" (Rozov, 1987, p. 36). Reflective action is directed on clarifying one's actions background, instead of features of their form; moral orientation are formed only at a constant estimation and reassessment of, former and present. Within a reflexive activity the process of self-knowledge of moral consciousness and moral self-knowledge is carried out. The moral consciousness cannot exist without self-comprehension. It is possible to draw a conclusion, that development of moral consciousness, and moral competence as its basic function, is tightly associated with the phenomenon of reflection. In moral judgment the estimation is made by the consciousness which has achieved a level and the form of self-comprehension. Therefore discourse on original morals is possible only since the age of adolescence, at the period, when all corresponding psychological structures ripen.

1.4.3 Decision-Making and Its Impact on Moral Competence

The process of decision-making plays a part in, or may even define moral competence. Accordingly, one have to take into consideration its five fundamental skills; structuring decisions, assessing beliefs, assessing values, combining these beliefs and values into coherent choices, and having a metacognitive understanding of one's abilities. For each skill, performance can be defined in terms of either accuracy related to an external criterion or consistency among responses (Yates, 1990).

Decision structuring as the backbone in the process of decision-making involves identifying the elements of a decision: (a) alternative courses of action, (b) potential consequences of those actions, (c) sources of uncertainty (regarding which consequences will follow each action), and (d) strategies for integrating decision-relevant information. Evaluating this ability requires presenting individuals with open-ended tasks (Parker & Fischhoff, 2001).

As we are already aware that the process of solving moral tasks pulls the person to make the decision, one has to consider features of the decision-making process for the moral judgement stressed above.

1.4.4 Definition of Moral Competence

The concept of competence includes, at least, two levels: competence can be understood as a possession of any knowledge, as ability to reason on a certain problem. Competence can also be considered as an experience in a certain sphere, ability to act, behave in a proper way (Sadokova, 2001).

In the Kohlberg's theory of moral development framework the concept of moral competence is presented as a certain cognitive structure, i.e. a skill to argue on moral issues, to provide own grounds of a moral choice and to explain the situations containing moral dilemmas (Bratus, 1985, 1994). Kohlberg defines moral competence as "the capacity to make decisions and judgments which are moral (i.e., based on internal principles) and to act in accordance with such judgments" (Kohlberg, 1964, p. 425).

In my thesis, the concept of moral competence shall be considered in its functional understanding, trying to describe both contents and structural components of the concept. I believe that understanding of the moral competence in frames of presented work count as main the function of moral consciousness.

Two psychological topics have to be taken into consideration while defining moral competence. Firstly, since any moral problems or moral conflicts always arise in a situation of certain communication it is a topic of *communication psychology*. Therefore, it would be logical to assume that some characteristics of communication competence are inherent in moral competence. Secondly, it is a *topic of psychology of comprehension* since competence in any case is connected to a level of understanding. It means that the factors causing process of understanding will be significant for the formation of moral competence as well. Thus, for description of the contents of moral competence concept one has to consider it through a prism of these two topics.

Leenen and Grosch (2002), determine three different social skills in intercultural competence:

- 1) *Individual skills*, which are defined by self-awareness, realistic self-assessment and ability to identify management,
- 2) *Partner related skills*, i.e. ability of empathize and to see things from a different perspective, and

3) *Interaction related skills* - an ability to get involved in mutual and satisfactory relationships.

Petrovskaya (1989, 1996) defines three components of communication competence: 1) Self-competence, i.e. orientation in own communicative abilities and features, in own psychological potential; 2) Competence of communication partner is an orientation in psychological features and abilities of other people; 3) Competence of situation, i.e. adequate situation and its tasks recognition.

Two basic components, causing process of understanding can be defined (Sadokova, 2001). The first one - *the goals of the subject of understanding*, and the second one - *system, hierarchy of values and norms* which the person counts comprehensible in a certain society.

Characteristic of moral competence has to include one more component influencing the process of moral dilemmas understanding. The person can not be either passionless observer, or the passionless figure. We experience everything that occurs to us; somehow we concern to everything that surrounds us. Experience of relation to the surrounding reality builds the sphere of feelings or emotions. Feeling is an attitude of the person to the world, to what he does in the form of direct experience (Rubinstein, 1993). So, following Rubinstein, the third component of moral competence influencing understanding of moral dilemmas, is *moral feelings*, i.e. direct experiences and attitudes which arise in a situation of moral communication. Thus the content of concept moral competence can be understood as a dynamic structure of orientation of the person in moral communication.

Thus moral competence, as an object I examine, bases on norms, values, purposes, intentions, interests, motives, feelings etc. of moral situation comprehension, and may be defined by its three components (Sadokova, 2001):

- *Self-competence* - the ability to adequately perceive oneself as a subject of moral interaction, to realize one's interests, intentions, aims, motives, feelings and value definitions caused by moral conflict and possible ways of behaving in a situation involving a moral choice;
- *Competence in partner* - an ability to perceive other individuals participating in that situation, to understand their aims, interests, motives, feelings, system of values and possible actions adequately;
- *Competence in situation* assumes an ability to have an integrated view of the situation, to analyze consequences of events, to comprehend the values and norms, which

participants of that situation are guided by and to take into account all the peculiarities of the conflict and the individuals involved in it.

1.4.5 System of Psychological Conditions and Moral Competence Development

Development of moral competence is provided due to the system of psychological conditions. This system is organized by a number of mental processes, namely: *objectivation, decentration, analysis, reflexivity and hierarchy* (Karabanova, 2001; Karabanova & Podolskij, 2003).

Objectivation (opening and making clear) of the moral norms content. This is the first task that individuals face during his/her moral growth - to clarify the social meaning of the behavior. The individual focuses on the interests and motives of other people and tries to make such a consequence that his/her action is on the well-being and emotional status of other persons. Objectivation is an essential point in the genesis of the moral choice and moral action.

Decentration – coordination of the different possible perspectives to consider one problem, where interests and needs of the participants are opposite. Only in this case one can deal with moral dilemmas and moral choice. Both cognitive and emotional components are involved in the decentration. Adequate and accurate perceptions of partners' feelings in the social interaction promote the coordination. The empathy and taking into consideration the emotions of the partner, the ability to interpret his/her behavior improve social interactions and provide the decentration. The contradiction of the participants' interests facilitates the process of decentration, because it makes evident the necessity to appreciate the perspective of others in order to satisfy all needs. The role-taking helps to clear the position of the others and leads to the decentration in moral reasoning and moral behavior.

Analysis specifies the importance of the cognitive processes in moral competence. Analysis is intended to distinguish between essential and nonessential (accidental) elements of the problem-situation (like moral dilemma is), helps to predict the following and future consequences of the behavior, to take into account a moral meaning, and to evaluate the importance of the different behavioral alternatives for the person.

Reflection – the representation of the content and foundation of the moral norm and moral choice in a verbal form. Reflection is a process of a great importance, which determines the level of generalization and consciousness of the moral action.

Hierarchization is the final step in establishing an individual's moral position, which expresses his/her attitudes towards moral norms, standards, evaluations, and patterns. Moral choice and final decision is based upon the hierarchical relationships between moral norms, differing by the content (for instance, justice sharing and helping behavior). According to the age-related developmental approach by Vygotsky and Elkonin (as cited in Karabanova & Podolskij, 2003), the regularities of the moral norms acquisition depends on the objective content of the norm, or on the regulative principles derived from the generalized social activity and interrelations.

All these processes - *objectivation, decentration, analysis, reflection, and hierarchization* are not consecutive in the time perspective, but form the developmental structure with causal dependence and makes valuable contribution to moral development and enhancement of a new, higher level of moral competence in particular.

It is possible to assume that moral competence is a major structure in moral consciousness and behavior of a person since it serves as a criterion for orientation development and bears with function of orientation activity. Orientation activity includes four basic components: *construction of situation's image, allocation of actual requirement's object, scheduling of actions, control and correction of execution* (Gal'perin, 1998). All these components reflect the nature of moral competence in the following way.

- 1) Construction of situation's image in which the subject is going to act; perception of a problem situation; comprehension and understanding of its conflict; allocation of the main participants of the situation and their positions (interests, intentions etc.);
- 2) Allocation of actual requirement's object, i.e. the purpose of an action; orientation in senses: allocation of conflict interests; comprehension of participants of situation's feelings; allocation of conflict norms and values;
- 3) Scheduling of actions, i.e. models of how it is necessary to act: a choice of right way to behave on the basis of comparison and account of values, norms, interests and feelings;
- 4) Control and correction of action: comparison of chosen behavior with "ideal", i.e. comparison of what the person decides to do with an optimum way from the point of view of morals and moral behavior.

Assuming that adequate orientation in moral situations is the basis of a morally competent behavior, one can assert that such competence would be realized in a case when the participant is

able for objectivation of such moral situation and its features, to analyze it, and consequently plan and carry out certain behavior. Morally competent behavior depends on the presence of corresponding means – objectivation, analysis etc.

1.5 Factors Affecting the Process of Moral Decision-Making and Moral Competence

In addition to the regularities and conditions of moral development and moral competence mentioned in the previous Chapters there are factors that cause differences in solving moral dilemmas by affecting the process of moral decision-making and moral competence. These factors are *age, gender, culture, the socio-economical status, family, school and education, situational factors, moral values, moral dilemma structure, and socio-cognitive conflicts*. All of these factors have strong interrelation with each other. For example, *moral values* of an adolescent are dependent on how are these values presented in *school* and what kind of moral atmosphere and moral behavioral patterns are common in the *family*, taking into account *socio-economic* peculiarities of his/her social and *cultural* surrounding etc. The whole thesis can be related to this interesting and important topic, but in this work all these factors will be discussed in the following Chapter.

1.5.1 Age

Differences among young and older adolescents were already specified (e.g., Craig, 1992/2000; Kohlberg, 1964; Obuhova, 1995; Piaget, 1983; Remshmidt, 1994; Zuckerman & Masterov, 1995; etc.) and represent the progress in cognitive, emotional, and social spheres of development while getting older. Thus, moral development, like the development of logical reasoning, proceeds in a gradual way, with developmental differences in moral reasoning more forced in childhood and early adolescence than in late adolescence or young adulthood period. Most individuals are preconventional in their reasoning, during childhood, but by middle adolescence, most individuals start to reason at the conventional stage of moral development. Conventional reasoning is also typical for adult's moral thinking, however, still sometimes occurring during the middle high-school years. Only after the age of 20, postconventional moral reasoning can appear and appears typically among the very educated individuals (Colby et al., 1987).

Some particular findings were also specified among young and older adolescents. For example, it was shown that older adolescents are able to look wider ahead, assess risks and likely outcomes of alternative choices than younger ones. They are better equipped to recognize the value of turning to an independent "expert," and more experienced to determine that someone's advice may be tainted by his/her own interests (Lewis, 1981).

Steinberg and Cauffman (1996) define three dimensions of maturity of judgment: 1) *responsibility*— self-reliance and healthy sense of autonomy; 2) *perspective*— a possibility to take the long-term view and concern for others; and 3) *temperance*— an ability to limit impulsivity and exercise self-control. It was stressed that the less mature a young person was rated in the study, the more likely he/she was to choose a less "responsible" option (such as shoplifting, smoking marijuana, etc.). Maturity of judgments is not directly related to age; that is, maturity level is high among 6th graders, is at lowest level among 10th and 11th graders, and then began increasing into young adulthood. It was also defined, that between the ages of 10 and 18, teenagers are able to make their own decisions, and that sometimes between the ages of 12 and 16, peer pressure has less influence on adolescent decision making. Gender differences were defined in the study: girls generally appeared to be more experienced than boys at a given age.

More precise differentiation of moral orientation in various moral dilemmas for the benefit of justice and care is observed with moving into adulthood. The strengthening of care principle preference with aging is typical for women. At the same time for men it has not been revealed: there is no precise interrelation among age and justice or care principle preferences. Age influences preference of a moral orientation' principle. Self-orientation disappears while getting older and ideal - orientation appears (Baek, 2002; Haviv & Leman, 2002; Perez-Delgado & Oliver, 1995).

1.5.2 Gender

So it is quite clear that both cognition and affect, and therefore cognitive and emotional intelligence plays a crucial role in moral dilemma solving.

Still it is rather difficult and ambiguously to say if one gender is more intelligent than another. However, studies by Bhosle (1999), Katyal & Awasthi (2005), King (1999), Singh (2002), Sutarso (1999) and Wing & Love (2001), state that females have a higher emotional intelligence when compared to males. However, some studies like the one reported by Chu (2002) reveal that

male have higher level of emotional intelligence in comparison with females' level of emotional intelligence.

With regard to Maccoby and Jacklin's (1974) introduction to the gender differences in cognitive abilities, meta-analysis of their results showed that: girls have preferences in verbal memory, verbal skills and school performance, and boys have greater ability at quantitative skills and spatial activities. Compared to boys, girls are significantly superior at verbal reasoning, while the gender difference on the other type of verbal ability, verbal reasoning, is not large (Strand, Deary, & Smith, 2006; Willingham & Cole, 1997).

But despite the traditional belief that girls outperform boys in the verbal domain, Parker and Claxton (1996) have found that boys have shown improvement in verbal skills abilities since Maccoby and Jacklin's work was published and female advances in verbal abilities are becoming less. Hyde and Linn (1988) based on their meta-analysis of 165 studies conclude that there are mostly no obvious gender differences in verbal ability, but the type of verbal test makes a difference.

Tapia (1999) and Dunn (2002) stress that girls score higher with regard to empathy, social responsibilities and interpersonal relationships than boys. Girls appear to be more sensitive towards their relationships with relatives, parents and peers.

Formerly features of moral orientation preferences were also examined as gender ones. It is considered that women prefer a principle of care while man is rather oriented on justice principle (Gilligan, 1976, 1977). However by now there are no proofs of stable preference of one or another principle only on the basis of gender differentiation. Results of number of researches analyzing influence of gender on moral dilemmas decision-making, yield inconsistent results (Brannon, 2002; Jaffee & Hyde, 2000; Klein & Hodges, 2001). Meta-analysis of more than 100 researches on moral orientations gender distinctions in frameworks of Kohlberg's periodization theory (i.e. within the framework of a justice principle) has shown that gender distinctions in moral development are minimum (Molchanov, 2005). At the same time the analysis of moral orientation preference has shown, that the *principle of care* is used more often by women, and the *principle of justice*- by men (Gilligan, 1976, 1977). The choice of the examinee's moral orientation is defined by a concrete situation (Jaffee & Hyde, 2000). In other words, orientation to care or justice is essentially caused by the contents of moral dilemmas.

1.5.3 Culture

Culture is a powerful factor influencing the features of moral judgments and moral decision-making process. The problem of cross-cultural distinctions in moral development was discussed already by Kohlberg which, assumes that development of moral thinking passes the same stages in various cultures and ethnoses, and considered moral principles as universal and invariant (Molchanov, 2005).

Similarities and distinctions in moral decision-making process have been revealed in comparative research on moral development carried out in USA and India by Miller and Bersoff (1992). In situations when human life was in danger, Americans and Indians were guided, first of all, by care and interpersonal obligations as major moral principles. In case when the contents of a moral dilemma did not include any potential harm for the human life, and the decision of a moral dilemma for the benefit of care and interpersonal obligations was as an independent decision of the person, Americans are guided by a principle of justice. It is defined that care and interpersonal obligations are moral imperatives for Indians and personal decisions for the citizens of USA. Thus, essential cultural distinctions in understanding of social responsibility and criteria of moral obligations definition is discovered (Miller & Bersoff, 1992).

Interesting results were achieved in the researches carried out with a sample of Russian teenagers aimed on moral dilemmas solving analysis in the context of moral development and rights education of modern youth. Contradiction of law and conscience in a moral dilemma was solved for the benefit of conscience, care, and mercy instead of justice. Thus, justice did not appear as a basic principle for the Russian teenagers (Volovikova, Grenkova, & Morskova, 1996).

Comparative cross-cultural research on values hierarchy found priority of same values in various cultures (Schwartz & Bardi, 2001). Various social groups also have priority on the same values within one culture (nation). The analysis of received results from more than 50 countries, have shown, that the most significant values are values of independence, care of relatives, universalism (understanding, tolerance, and care for other people and nature well-being etc.). At the same time the least significant appeared to be the values of authority (social status and prestige, domination above other people), traditions, etc.

1.5.4 Socio-Economical Status

There are certain evidences, that socio-economical status has the strongest influence on moral orientation (Molchanov, 2005). Some researchers consider such influence even stronger than the influence of gender differences. There are empirical proofs, that in families with low socio-economical status woman are guided by a care principle more often, than in families with high socio-economical status (Levine, Norenzayan, & Philbrick, 2001).

1.5.5 Family

Family's influence on moral development is crucial. Numerous researches are related to the analysis of family structure's influences on children moral thinking and moral judgments (Hoffman, 1982, 2000; Okin & Reich, 1999; Smetana, 1999). Three essential characteristics of a family as a social structure, which influence features of a child's moral judgment are unity, adaptability, and communication features (Molchanov, 2005). High level of family unity leads to more rigid borders between family and outer world and consequently reduces opportunities for children to receive the information from "outside" and loses possibilities be guided by it. Adaptability (as an ability of family system to change the structure of role interaction depending on situation flexibility) leads to increase of family system flexibility and as a consequence, ability to account positions and opinions of other people. Features of communication in the family, such as empathy and reflective thinking promote development of orientation to other people and the account of their position in moral dilemmas solving. In addition to this the models of upbringing used in a family are of high importance for the child moral behavior development. It is necessary to notice that families of various cultural groups adhere to various upbringing systems. Various educational systems define what is considered in a situation that includes moral dilemma (Rudy, Grusec, & Wolfe, 1999).

1.5.6 School and Education

Within the periods of childhood and adolescence, three significant contexts for moral development are allocated: family, school, and peers (Molchanov, 2005). Damon (1984) allocates moral goodnesses while considering regularities of "moral child" formation: honesty, kindness, care of others, feeling of responsibility and justice. Family and school provide interiorization of the specified feelings, acting as interconnected systems and compensating the problems of each other. Moral

education in family and school is realized through learning of moral behavior samples. Damon, first of all, considers parents as teachers of moral values, but not just as samples of moral behavior for children, and defines learning as basic mechanism of experience translation, instead of own moral behavior example demonstration (Damon, 1984). On the contrary, Bandura (2002) considers that imitation is not less significant, than actual learning.

Equality of gender roles in a family, account to student's training in one of the various forms, and multiculturalism acts as a peculiarity of the school should be taken to account to optimize the process of children and adolescent moral development (Okin & Reich, 1999). The school becomes high quality institute of moral development when its refocuses from the school training purposes and knowledge, skills acquisition to formation of pupils relations system (Armon, 1998; Bebeau, 1993; Enright, Lapsley, & Levy, 1983; Host, Brugman, Tavecchio, & Beem 1998; King & Mayhew, 2002).

1.5.7 Situational Factors

Situational factors (such as features of a concrete situation, its participants and relations between them) have definitive influence the way of moral dilemmas decision-making process (Molchanov, 2003). For example, in research aimed on the analysis of conditions of behavior rules infringements by younger teenagers in situation of examination, three situational factors, influencing readiness to cheat and/or not to inform that another pupil cheats has been revealed: presence of the observer in a classroom, importance of test and acceptance of peers' norms, "code of fellowship". The more important test is, the more situations of active rules infringement (cheating) are observed; peers norms and presence of observer influences both on active, and on passive (student sees that someone cheats, but do not inform teacher) form of rules infringements (Eisenberg, 2004).

1.5.8 Moral Values

In the framework of researches, aimed on personality values sphere, values are considered as regulators of behavior (Molchanov, 2005). Values preferences are important, but not the unique factor influencing behavior of the person. Schwarz notices, that behavior of the person besides primary values is influenced by social norms, rules and expectations as well. Under the guidance of Rokeach (as cited in Molchanov, 2005) a number of researches confirm that actions are defined

by priority of values. For example, importance of "health" value is typical for the people, which pay much attention to the health in their real life (Belinskaya & Tihomandritskaya, 2001).

Situations of hypothetical behavior modelling show that people in most cases wish to behave according to preferred valuable orientations. At the same time value can affect behavior via additional mechanisms, like habits for example, which do not involve understanding of reasons of acting (Molchanov, 2005). Research on behavior and value priority's interrelation has shown presence of significant correlation among them: correlation among all types of valuable orientations and corresponding behavior types was found. The highest degree of interrelation is received for values of stimulation and traditions, hedonism, power, universalism, self-control, safety, conformity, achievements and favour (Bardi & Schwarts, 2003).

1.5.9 Moral Dilemma Structure

The main point of discussion in this topic is *how people interpret real dilemmas*: in terms of internal moral orientation (Gilligan, 1977, 1988) or in terms of moral dilemma contents (Krebs, Vermeulen, Carpendale, & Denton, 1986; Wark & Krebs, 2000). Numerous researches have shown that moral dilemma' contents are extremely significant for the process of moral dilemmas solving (Armon, 1995; Krebs et al. 1986; Walker, De Vries, & Trevethen, 1987; Wark & Krebs, 1996, 2000). Authors assume that the structure of a moral dilemma, but not a moral orientation, has significant influence on the moral decision-making process.

Personal identification with the hero of a moral dilemma is also a significant factor for decision-making (Molchanov, 2005). In research by Maner et al. (2002) the relation between assistance and personal identification with the hero is studied. Identification with a victim raises probability of the helping behavior. The mechanism is based on empathy to an emotional state of a moral dilemma hero and as a result respondent experiences discomfort, stress, displeasure etc. Authors present integrative model of conditions of assistance behavior: acceptance of another person's position, empathy, identification, emotional experiences of distress. Any form of "assisting" behavior is based either on attribution of own features to another person (identification), or on attribution of another person's features, feelings and experiences (identification and empathy) to one self (Maner et al., 2002).

1.5.10 Socio-Cognitive Conflicts

Previous experience of socio-moral conflicts influences features of moral thinking and moral decision-making. In the research by Ikonen-Varila (1994) examinees are asked to describe a real problem situation which happened during work and then to fill Kohlberg's moral judgments questionnaire. It has been shown, that examinees, which have had real experience and various points of view on a conflict problem situation, as a result achieve higher results on Kohlberg's questionnaire.

Finally, in real life, people often make moral choices and decisions out of habit or tradition, without following decision-making steps directly (Fischhoff, 1988). As Reason stresses (1990) decisions (moral ones, in particular), may be made under social or time pressure that interfere with an account of options and consequences of situation. For instance, decisions may be easily influenced by one's emotional state at a certain time when an important decision is made (Plous, 1993). Sometimes, people also lack adequate information or skills and eventually turn up making less optimal decisions in difficult situation (Fischhoff, 1992). But, as far it is asserted in National Research Council (1989) even when there is enough time and information enough people often do a poor job of understanding the probable ways of problem-solving, taking into account far not all consequences. Even when they know the statistics, they are more likely to rely on personal experience and intuitions than any information about probabilities.

Thus one can conclude that age and gender differences, family and upbringing, school education, culture and socio-economical status, role of moral dilemma structure, moral values of the person and situational factors indisputably affect moral development, moral competence and moral judgment in particular. Interconnection and interrelation of the factors mentioned represent a complex scheme, which has to be examined in accordance with peculiarities of each of the factor separately but taking into consideration the others.

1.6 A Problem of Moral Competence Measurement

The concept of "moral competence" became to be some sort of a symbol of modern cognitive developmental psychology. At those times when concept was introduced, it was thought that the presence of a moral position is the sufficient condition of moral behavior (Burton & Kunce, 1995). Piaget and Kohlberg assert, that moral positions correspond with moral behavior

by a complex way: an approach to their relations estimation can be properly realized with the help of "cognitive structures" or "competence", which are formed during ones personal development (Piaget, 1964; Kohlberg, 1958, 1964; Lind, 1995/2004).

Socrates (as cited in Lind, 1995/2004) claims that one can study expressions of people, while observing them in action. Modern psychometric theories agree with this statement and assume, that it is possible, and, even necessary, to study an act of the person separately, ignoring interrelation between acts and their properties. Classical test theory is based on the notion, that a certain disposition like a particular ability can be measured by observing *one* behavior (Lind, 1995/2004).

Several other researches assume cognitive structures to be non-observable and non-measurable ones. Loevinger (as cited in Lind, 1995/2004) clearly explicates this position: "testing the distribution of scores within a protocol as if it represented a characteristic profile for that person's ego structure appears to be erroneous [...] Probably variability is more a function of the instrument than of the person" (Loevinger, 1976, p. 239-240).

Kohlberg (as cited in Lind, 1995/2004) realizes that for complete description of moral behavior it is necessary to take into account two aspects: a) *affective aspect* - attitudes or principles, which regulate the behavior, and b) *cognitive aspect* - formal properties of interrelation among moral attitudes (principals) and their behavior. Thus affective and cognitive aspects of moral behavior should be precisely separated from each other.

1.6.1 Moral Judgment Interview

Almost half a century ago Kohlberg (1958) in his dissertation has presented the main principles of methodology for estimation of moral judgments. His work claimed to provide a (valid and reliable) measure of the structure of moral thought and behavior. In no doubt, it was a revolutionary step for socio-moral psychology. Within approximately thirty years Kohlberg and his numerous associates improved and validated the system for scoring reasoning about moral dilemmas. The publication of "Measurement of moral judgment" in 1987, under the edition of Ann Colby, Lawrence Kohlberg and their colleagues was a worthy compensation for many years of persistent work.

Kohlberg (1964) bases his approach of structural components of moral judgment estimation on methodology, which is defined by three interconnected points. *Firstly*, using a

method proposed by Piaget, the subject is offered with the moral dilemma as a short narrative (for example well-known "Heinz Dilemma"), which is based on two (or more) contradictory moral principles. Accordingly, the subject is offered to make a choice. *Secondly*, the interviewer, carrying out the process of interview and asking for qualifying questions, should take into account a context of the presented situation. *Thirdly*, while calculating the scores of interview a number of significant units of measurement (basically, qualitative) should be taken into account.

Kohlberg and associates propose the notion that subject is stimulated to consider moral norms while facing the confrontation in moral dilemmas, rather than more technical (technical as more appropriate strategy in everyday decision-making) problem solving. By means of a moral dilemma there is a moral discussion between the interviewer and the respondents. Following the structure of SIS interview, the choice between two alternative courses of action implies a choice between two moral values, and a particular cluster of moral norms. The authors of "Measurement and Moral Judgment" maintain that, neither logically nor empirically, would the choice of the respondent determine the stage of moral reasoning that he/she uses (Colby et al., 1987).

Colby et al. (1987) believe that probing and well-made interviews are a perfect way for moral judgment stage assessment. Probing is important for several reasons: firstly, to achieve high score ability of received answers; secondly to define the highest stage of moral reasoning that the subject can reveal, and; thirdly, to diagnose a subject's capacities to apply moral principles to the process of moral decision-making.

But in contrast of its importance, interviewing as an estimation method, is described very superficially, and constructed entirely on intuition. In many respects interviewing instructions are very indistinct. For example, the researcher is instructed to carry out the interview rather intensively, but it's forbidden to ask precise questions, like "*Why?*" or "*What for?*" frequently (Colby et al., 1987). In his dissertation thesis, Kohlberg (as cited in Colby et al., 1987) used probing to diagnose the stability of moral convictions, in comparison with "Measurement of moral judgments", where probing is used only to produce sufficient linguistic material for subsequent scoring.

Lind (1995/2004) emphasizes a very important notion: "What must be critically examined, is the relation between the meaning and the measurement of moral competence" (p. 9). Kohlberg (as cited in Lind, 1995/2004) sometimes doubts of, whether his Interview method is directed on research of moral competence, whether is it effective, and valid regarding to the initial understanding of moral competence as an object of studying.

Method of interviewing, as well as the method of verbalized judgment are not identical with tacit cognitive processes used in the process of moral decision-making, and both types of reasoning are not related to each other to believe conscious reasoning being to be a valid indicator or tacit moral competence. For example, if a simple-response-method by Piaget (like answering the question "*Which of these two acts is the worse, A or B?*") can considerably overestimate, the Kohlberg's method of interviewing which assess realized, conscious moral beliefs, can considerably underestimate moral competence of the person (Lind, 1995/2004).

The new method of studying of moral competence suggested by Lind (1995/2004) rests on three significant positions:

- 1) Following Piaget and Kohlberg, Lind determines moral judgment as some kind of human moral behavior which should be described both in affective, and in cognitive aspects and which reflects not only moral principles of the person, but also capabilities to consider these principles during the process of decision-making;
- 2) Secondly, on the basis of dual-aspect model of moral judgment, Lind, in his opinion, has developed new methodology, which would help to study, and accordingly, to assess both sets of descriptive categories, the affective and the cognitive aspects, with the *same pattern of judgment behavior* rather than with different sets of the so-called "affective" and "cognitive" behavior;
- 3) Thirdly, Lind (1995/2004) supposes that "cognitive structures of moral judgment could be *directly* assessed as a property of manifest judgment behavior, rather than having to be indirectly inferred through signs' requiring, skillful interpretation"(p.15).

Lind develops "*Experimental Questionnaire*" on the basis of above-mentioned positions and Kohlberg's methodology criticism. "An "Experimental Questionnaire" provides a general format for assessing not only affective but also cognitive aspects of human behavior. It does not restrict assessment to moral attitudes but renders ,tacit' moral cognitions measurable. It does so by analyzing the manifest structure of an individual's behavior (Lind, 1995/2004, p 15). The concept of "Experimental Questionnaire" later on provided the general framework for construction of *Moral Judgment Test (MJT)*."

1.6.2 Moral Judgment Test

Moral Judgment Test, or MJT, was developed in 1975-1977 by Lind (1995/2004) and his colleagues "... in order to overcome the gap between meaning and measurement in the field of moral development and education"(p. 27) and for assessing competence of moral judgments. For the last three decades this test has been carried out on 30000 examinees, including cross-cultural, longitudinal, experimental and educational intervention projects. It is a *behavioral* test of a subject's ability to judge controversial arguments about moral problem on the basis of moral principles and orientations (Lind, 2000).

One of the main *Moral Judgment Test* indicators, C- Index, index of moral judgment competence is calculated, taking into account the whole structure of the subjects' response, rather than its separate components. This index determines a subject's capability to estimate moral component of a situation in greater sense, rather than an estimation of the simple statement and his/her attitude to it. The C-index is not calculated by the simple sum of answers, but defined by ratio between components of the subject's answers. It is determined by a ratio of the general percent of answers and the qualitative analysis of the respondent's arguments. Cohen (1988) subdivides levels of the C-index into several grades, like low (1-9), average (10-29), high (30-49) and very high (more than 50).

MJT is based on dual aspect theory of moral behavior. As Piaget (1976) states, "affective and cognitive mechanisms are inseparable, although distinct: the former depend on energy, and the latter depend on structure" (p. 71). Affective component informs us about the direction of a person's behavior, and cognitive component contains the information on the structure of behavior (Lind, 2000). The given theory postulates, that for complete research on moral behavior, one should consider both affective, and cognitive aspects; and the full description of moral behavior should be included: a) determining moral principles and b) cognitive opportunities which the person uses, while applying these principles in the process of decision-making. In this regard Lind criticizes Kohlberg's IMJ as a method which estimates affective and cognitive aspects of moral judgment, simultaneously, mixing them.

At once Lind (2000) stipulates that his test was developed not for individual diagnostics of abilities in estimation of moral judgments, but as a principle research method and as a method of an estimation of moral training and moral development programs. Moral judgments of the person depend well on such situational factors like motivation, involvement, previous experience etc.

Thus, Lind emphasizes that the tool for an estimation of moral competence level should include guarantees from false interpretation, which are not included in MJT. Unpublished researches show that respondents during research (during MJT and during repeated test procedure) had a very low level of motivation.

Thus, Lind (2000) asserts that the diagnostic tool (the Moral Judgment Test) was designed for evaluation studies and particularly to measure the core of moral-democratic competencies, namely the ability to make moral judgments and to engage in a moral discourse to solve conflicts and dilemmas and should not be used to make decisions about individual persons. Conversely, individual moral competence is of great importance, and this issue is addressed in my thesis.

1.6.3 Defining Issues Test

Defining Issues Test - DIT, the test developed by Rest (1984), similar to the Lind's MJT, is, the so-called test for recognition with a plural choice concerning moral behavior. Those two tests differ in their approaches to measuring moral competence, focusing on *stage* preference (DIT) and stage consistency (MJT). The DIT measures the beginnings of moral understanding, which are mostly non-verbal and intuitive, in comparison to the Moral Judgement Interview of Kohlberg, which measures the level of verbal understanding.

The DIT is interpreted according to the schema theory (Narvaez & Bock, 2002). The respondent is offered to estimate the offered arguments concerning a moral dilemma, which reflects different stages of moral judgments, on the one hand, and reflects the attitude of the main hero to a moral dilemma on the other hand.

Rest (as cited in Narvaez & Bock, 2002) proposes that the DIT is particularly good in measuring changes in moral schemas the person uses to answer the "macro" question "*How to negotiate with people whom you don't know, who are not your friends, relatives?*", "*How to organise and manage society-wide cooperation?*" etc.

Through statistical analyses, three factors – schemas - have been identified in DIT scores: *Personal Interest Schema*, *Maintaining Norms Schema* and *Postconventional Schema* (Narvaez & Bock, 2002).

Personal Interest Schema is the simplest schema and represents Kohlberg's Stage 2 and 3 of moral development. This schema does not include any macro-morality perspective, and concentrates on survival, personal advantage and impulsive cooperation. "A fair world is one in

which I can get what I want". Following this schema and on this level of thinking, the person begins to consider the needs and requirements of others. He/she briefly learns to exchange cooperation.

Maintaining Norms Schema. Formally this schema is categorized as Stage 4 and Stage 5 of Kohlberg's hierarchy and enables one to consider the ways of cooperation among people, who are not friends, relatives or those who are not so acquainted. The person following this schema can "coordinate personal/significance other negation with reciprocity for the larger society through the interplay of cognitive fields that describe established practices, rules, codes and their *de facto* authorities" (Narvaez & Bock, 2002, p.305). Personal expectations are only partially mutual.

Postconventional Schema. The most developed and progressive schema reflects Stage 5 and 6 of Kohlberg's theory. In this scheme a person has experience, including the convincing arguments of other people that necessitate thinking about a fair society more broadly. Following postconventional schema, a person can apply moral ideals in a mutual manner in which each member of society has absolutely equivalent status, he/she thinks in terms of full reciprocity and equity across all groups within a society. Thus, this level of thinking and this schema considers macro-level cooperation in a way of defending sharable ideals that are open to exploration and negotiated through the give and take exchange in community life. Various combinations of political and moral philosophy could form the postconventional schema. Persons who follow postconventional schema are able to function at the highest levels of moral judgment and moral dilemmas solving within the community.

Narvaez and Bock (2002) assume that all three moral schemas measured by the DIT could be viewed as mental models — as integration of cognitive fields and their memory objects—for solving moral dilemmas and moral reasoning. But as Narvaez & Bock (2002) stress, there could exist other moral schemas besides those the DIT measures, and which a person might use and take into consideration for reasoning - for example religious or cultural moral schemas.

As it is stressed by the authors of the DIT, three schemas do not cover the whole process of moral thinking assessment, nor do they constitute a full model of moral-decision making (Bebeau & Thoma, 1999), and they are close to many issues of public policy controversy (e.g., abortion, euthanasia, religion in public schools, free speech and political demonstrations, etc.— see Narvaez et al., 1999).

Summing up one of his papers (Lind, 1995/2004), George Lind states that there still exists a wide gap between the concept of moral competence and its measurement, and the results

received neither confirm the presence of a certain moral competence, nor disprove this fact. This conclusion produces the necessity of new searches of an adequate method for investigation and measurement of moral competence.

1.6.4 Presentation of Material as a Way to Discover Moral Competence

Most researchers in the field of moral development and moral competence used certain types of problem task presentation material (interviews, written narratives) but not all of them took into account the deeper meaning of its influence on the process of evaluation of moral competence on the whole. Kohlberg (1984) realized that the stimulus (presentation) materials, but not the way of presenting, and the interviewing method were decisive for defining the level of moral judgement. It is important to use presentation material to: 1) acquire high content-rich answers, 2) define the highest level of moral judgement that is possible for the respondent and 3) ascertain the level, on which the participant can use their own moral principles for moral decision-making.

On the other hand, Lind (2000) states that moral competence can not be observed or measured by looking at an isolated act (or acts) of moral behavior. Valuable judgments of a person's moral dispositions can only be made when one can observe the whole pattern of different reactions to a variety of moral situations.

This work assumes an important role of moral task presentation. To access and finally measure the structure of moral competence one needs to present to the respondent an important (motivating) real-life problem situation, which includes moral dilemma.

1.6.5 Hypothetical or Real-Life Moral Dilemma?

It should be signed that the type of moral conflict used to assess moral reasoning may affect the type of reasoning used by adolescents, the difficulty in dealing with the conflict, and the emotions evoked in regard to the presented moral dilemma (Skoe, Eisenberg, & Cumberland, 2002).

"Classical" moral dilemmas (such as the Heinz dilemma) used by Kohlberg and Rest in their studies are traditionally hypothetical moral dilemmas, which have an open-ended structure and involves a conflict between the rights, responsibilities, or claims of abstract characters. These

characters are faced with a pressing decision, including controversies of two or more moral norms, which the students are asked to resolve. The problem with such abstract, hypothetical dilemmas is their failure to engage people in the richness, high emotionality and ambiguity that real-life situations can offer. Also by presenting the hypothetical problem situation instead of realistic one a variety of ways to approach and solve the moral dilemma is lacking.

In contrast to hypothetical problems, true-to-life moral dilemmas come closer to the ambiguities of daily social experience of the people, and teens in particular. Real moral problems offer the potential for adolescents to act on the solution of the conflict. Partly the reason for that is because discussion of real moral dilemmas brings attention to conflicts in student's lives that are quite often being ignored. Adolescents feel personal relevance and growing interest, motivation and emotional involvement as they learn that not everyone thinks as they, by themselves, do about how to solve such moral problem.

Thus contrary to the Kohlberg's method, Gilligan (1982) and her collaborators conducted interviews in which participants were asked to construct and reason about a moral dilemma based on a situation they themselves have experienced, a so called real-life (e.g., abortion) dilemma – opposite to hypothetical moral problems. The method used by Gilligan is criticized by Walker et al. (1987) who claim that if participants were allowed to choose the dilemmas by themselves, findings of any gender differences in solving dilemmas may simply be explained by the preferences of these participants for a certain type of dilemma, rather than by actual differences in moral reasoning progress.

Evidently, personally experienced conflict has to have much more direct relevance to adolescence (rather than presented hypothetical dilemmas) and thus may be more engaging. Real-life dilemmas also may provide more representative information about how people make moral decisions in their lives. The problem with studying real-life moral dilemmas is that they are rather individually significant for participants and vary in different moral, conventional, or simply practical concerns are central, so that it is complicated to compare responses to various moral dilemmas (Skoe et al., 2002; Wark & Krebs, 1996).

As mentioned by Skoe et al. (2002), emotions evoked by real-life (versus hypothetical) moral dilemmas can vary, for example, due to the reason that personal relevance of dilemmas could be greater when people reason about real-life than hypothetical moral conflicts. However, the topics and issues involved in hypothetical conflicts are likely to be of greater moral significance than those in every day, real-life moral dilemmas, because the conflicts used in

hypothetical moral dilemmas are often chosen specially for their compelling nature. But it is still difficult to predict if, on an average, one type of moral dilemma evokes more emotion than the other one and if these emotions are more morally relevant and stronger for one moral dilemma presented than the other one.

Results of the study by Skoe et al. (2002) show that feelings of upset and sympathy are related to dilemma importance. In presented real-life moral dilemmas, sympathy and anger uniquely predicted both care and justice orientations (care – positively, and justice - negatively). In this study relational real-life moral dilemmas evoked more emotions than done by non-relational ones.

In particular, the assessment of decision making in controlled laboratory situations that ask respondents to solve hypothetical dilemmas is likely to diminish the role of emotion in moderating cognitive processes. Limitations of hypothetical dilemmas use lays in the assessment of adolescent decision making or moral competence is that these "laboratory" situations minimize the potential effects of psychosocial factors on judgment, especially in sense of inclusion in situation, temperance and responsibility. For instance, hypothetical situations do not require an individual to exercise responsibility or self-reliance, because hypothetical situations have no consequences in reality. On contrary, real life problems and dilemmas demand adolescents to make many decisions that have real and often serious consequences for him/her (Steinberg & Cauffman, 1996).

As it was already mentioned above, Lind (2007) in his studies uses hypothetical moral dilemmas whose solutions were fictitious. Lind prefers to call them "semi-real" because they catch the attention of adolescents and stimulate an importance for them, serious, lively debate, than those dilemmas are not just abstract, hypothetical, or out of reality. In some sense those semi-real moral dilemmas are real, as a fiction or movie is seem to be real for the audience in cinema. Lind (2007) stresses, that if a moral dilemma does not seem to be real for the participants, it will not start any moral-cognitive processes in the students for solving the moral dilemma; and these are so-called semi-real moral dilemmas are supposed to be most effective for moral and democratic learning.

Thus the moral dilemma has to be presented as a real-life one so as to gain such affective experience that could be perceived in real situation. In other words a situation could be hypothetical but ought to present realistic moral conflict and be perceived as a real one,

experienced as emotionally significant, like one should say while getting to know it, that "it could happen with me or with you".

The obvious question follows: how is it possible to provide such a presentation of the situation that contains a moral dilemma? The next Chapter is devoted to that question.

2. Instructional Video as a Way to Assess Adolescent Moral Competence

2.1 Introduction. Adolescents, Media, TV and Video

Adolescents in the 21st century deal with many different media including music, television, video games, Internet, and movies, which play a significant role for youth. For example typical American adolescent in average uses media eight hours daily, either as a primary activity or together with other activities (Arnett, 2001).

As it was already stressed in the previous Part, adolescence is a time of extensive cognitive, emotional, physical, and socio-moral development. These biological and psychosocial changes have a double affect on adolescents' relationship with all types of media. The relations between adolescent development and the media are inter-dependent. Youth do not approach media as *tabula rasa*, but rather as members of families and communities they are engaged in. The ideals and principles learned from social institutions, friends, peers etc. influence not only their media choices but also their interpretation of the media they watch, hear and play (Arnett, 2001). On the other hand, the messages presented by means of media impact development of adolescents, and, for example, as youth develop relationships with the opposite sex, the media influence their understanding of gender roles.

The cognitive development of youth changes their interpretation of the media. Adolescents become capable of high levels of abstract thought and reasoning and are able to evaluate the media environment critically, but at the same time they have a non-critical attitude and a disposition to 'look without seeing' when watching television, investing little mental effort (Sebald, 1984).

In emotional sphere, adolescents develop a sense of self that includes values, abilities, hopes, and this sense of self is sensitive and very impressionable to the effects of the media. Media, such as TV and video, in particular, provides information on intimate and "hidden" issues such as sex and romance that adolescent may be unfamiliar with, or their parents have not yet made clear these topics for them (Sebald, 1984). Thus youth develops a preference for music

videos, horror and thriller movies, and (boys particularly) videos with erotic content, which deal with these topics.

As children become adolescents, they increasingly turn to the media for information and entertainment rather than to their parents and their ideas, values and beliefs (Levine, 1996). Thus, the media plays a profound role in the socialization process, influencing youth's ideas, values and beliefs.

Regarding the issue of morality, one may evidently suggest that one of the potential ways to transfer aggression to adolescent viewers is to present the behavior in a moral context. It is interesting to notice, that nearly 40% of the violent acts are perpetrated by the "good" characters on television and film (Strasburger & Wilson, 2002). For adolescent the chosen reference group (e.g., family, peers, nation) defines him what is right or good, and adolescent internalizes these norms (Bee, 2000). The inescapable presence of the media makes it a source for values and norms-a reference for moral standards.

Despite the fact that video plays a large part in information, communication and entertainment - socialization for adolescents, negative influence of media are still in presence. Negative health effects of TV and video on sexuality (e.g., Brown, Greenberg, & Buerkel-Rothfuss, 1993; Kunkel et al., 1999; Strasburger, 1997); academic performance (Morgan, 1993); body concept and self-image (Harrison & Cantor, 1997; Signorelli, 1993); eating disorders (Andersen, Crespo, Bartlett, Cheskin, & Pratt, 1998; Jeffrey & French, 1998); and drug and alcohol use and abuse patterns (Strasburger, 1997) were revealed. Especially the negative effect of media could be found in regard to violence and aggressive behavior (Donnerstein & Linz, 1995; Eron, 1995; Huston et al., 1992; Strasburger, 1997; Willis & Strasburger, 1998).

Violence and its influence are often hidden, smart and mostly always inevitable. By means of television and video, 71% of the violent scenes on the screen have no remorse, criticism or penalty, and 50% of the violence shows no physical harm or pain (Strasburger & Wilson, 2002). Because there are no implications or consequences shown in violent scenes, one can state that violence on the screen is presented as an activity that is not anti-social, but still with probable immoral consequences.

For instance 10% to 20% of real-life violence may be attributable to media violence, and especially TV and video violence (Comstock & Strasburger, 1993). So it is possible to find a relation between real moral behavior (as a consequence) and those presented on the screen behavioral patterns (as a source).

Media plays a large role in the socialization process and affects an individual's behavior (moral behavior as well), attitudes, and beliefs. But one can state rather difficult and harmful situation with violence, aggression and other negative influence from the screen, and a need to resist the consequences of such influence on children and adolescents. However, most often media-producers and politics whose interests underlie violent shows and films win such kind of protests and social "media wars". Therefore one have to follow an alternative route - thus not remove the aggressiveness, violence, by cutting the amount of these "negative" television. But, *firstly*, educating the society about proper understanding of such powerful media as TV and film. Evidence shows that media education can help to mitigate harmful effects of media violence (Gunter, 1994; Kubey, 1996; Singer & Singer, 1998) and alcohol advertising (Austin & Johnson, 1997; Austin, Pinkleton, & Fujioka, 2000) on children and adolescents. For instance, discussing with friends real-life popular TV programs can enhance adolescent social/moral growth and development (Irlen & Dorr, 2002). And, *secondly*, to promote the development of "positive" attitudes, moral judgements and behavioral patters one has to use the potentials of video for educational and training needs. Within this thesis the second point will be presented. Finally, regarding the topic of the thesis the question of benefits and advances of video technology, and affect on efficacy of moral dilemma judgment and its assessment will be discussed.

Thus in the next section one of the main features of video technology will be discussed.

2.2 Movie as a Means of "Feeling". Video, Identification and Empathy

In the present day, if one would like to find out a means, with support of which one might facilitate an appearance of the greatest amount of emotions, cinematography and television, would probably, lead this list. Cinema was and still is an unlimited space where billions of people of different ages, sex and religion meet each other for the same goal – to experience and express emotions.

Modern society is filled with cinema culture, TV and video films and is absolutely unimaginable without them. Movie production industry offers us a way to achieve an exciting and multisensory experience, but for some of us, cinema is still the place where one can "watch, deepen and sense". But an exclusive ability of the movie is to transmit the same emotions to different people.

Classical cultural workers in the movie production defined emotions as one of the general goals, which the film director aims for while shooting the new movie. Munsterberg (1970) stresses the importance of emotions: "picture emotions must be the central aim of photoplay" (p. 48). The former, empathic type of emotional response is by far most prevalent for the author. Film elicits emotions, and they are central because they add "vividness and affective tone into our grasping (film's) action" (p. 53).

From the point of view of Smith (1999) the primary effects of emotions in film is to create a mood. A mood, which appeared within the process of watching the movie, prepares us to express and experience different emotions. Mood plays the function of orientation for the proper interpretation of emotive stimuli, and encourages us to search for the possibilities to feel and experience it. And to establish one or another mood one has to use coordinated cueing, and a range of cinematic signifiers which could be made with an aid of special techniques. Smith also uses a term "emotional markers", which signalize the audience to follow the goal-oriented path of narrative, and making them engaged in a brief emotional moment; these moments of emotional expression reinforce the mood's predisposition and force the mood to continue. Smith argues that these "emotional markers" do not simply advance or retard the narrative progress. It is also neither an informative device, which provides us with more details about the story. These markers fulfil an important emotive function in the text. When the viewer is engaged in appropriate mood, emotional markers help to maintain that predisposition toward emotional response.

In the present day, one can define a number of special techniques that create necessary emotional atmosphere like light, camera movement, actors' performance, sound, music, narrative style, genre shifts, etc.

Movie spectators often describe their emotional involvement with term of identification. They associate themselves with movie heroes, and, partly, the success of movie partly depends on whether the identification occurs or not. Emotional response of the spectator depends on the level of identification (Gaut, 1999).

But how can one define identification in terms of fictional movie characters? Naturally it is an ability to put oneself into the shoes of the movie character. Spectators can imagine him/herself with whom he/she has identified. Identification can be imaginative.

The act of imaginative identification involves imaging – not, strictly speaking, being another person, but rather imagining being in his/her situation, where the idea of the situation encompasses every property he/she possesses, including all physical and psychological traits (so

we imagine the world from the physical and psychological perspective). Hence "what I do in imaginative identifying myself [...] is imagining being in his situation, doing what he does, feeling what he does, and so on" (Gaut, 1999, p. 203).

There are other points of view on the notion of identification. Ellis (1982) defines identification as an experience of being able to put oneself so deeply into a character -feel oneself to be so like the character- that one can feel the same emotions and experience the same events as the character is supposed to be feeling and experiencing. The viewer is not only finding him/herself with an actor description, but with the defined place of the actors' role in the whole narrative and its relation to other roles. Identification with an actor could appear only in the case of complete understanding of situation and complexity of actor's relations. Ang (1982) asserts:

Identification with one character does not take place in a vacuum. One does not just recognize oneself in the ascribed characteristics of an isolated fictional character. The character occupies a specific position within the context as a narrative as a whole: only in relation to other characters in the narrative is her or his personality brought out. In other words, identification with a character only becomes possible within the framework of the whole structure of the narrative (p. 29).

Kilborn (1992) argues that identification will be the strongest, that viewers feel especially close to characters when the latter are going through times of stress, drama or crisis. He claims that viewers even can derive therapeutic benefit from this form of emotional indulgence.

Plantinga (1999) offers to use the term "character engagement" instead of "identification", because it "...implies losing of the self in the other, whereby our identity as a separate individual momentarily becomes lost or weakened as we identify with a character on the screen" (p. 244).

Identification with a character means comprehension of the hero's perspective on the fictional reality presented in the movie. But this perspective is not limited by visual "projection", but also includes an affective perspective - hero's feelings, motivational perspective –hero's motives concerning situation, epistemic perspective – hero's epistemic believes etc. Gaut (1999) stresses:

If our knowledge of what is fictional in the film corresponds to a high degree with that of a particular character, there is a tendency to identify affectively and to empathize with that character, even if we are antecedently not disposed to do so. (p. 210)

But as stated before while discussing the notion of empathy (see 1.3.2 for Details), perceptual identification with the movie character does not entail affective identification with the situation, namely feeling what hero feels. Empathy with movie character means imaginative projection of oneself in to the movie character's fictional situation, and consequently feeling this character's feelings.

Gaut (1999) differentiates affective identification from empathy in the following manner: the first (affective identification) requires that the person just imagine the feeling of an actor, while the second (empathy) requires, experiencing the characters feelings in reality. The author shares the idea that empathy with movie character presupposes one to imaginatively enter the character's mind, and experience same feelings (like this movie character has) due to visualising the character in such a fictional situation. Epistemic form of identification has a tendency to foster empathy, while affective identification may influence empathy with movie character, particularly when his/her (character's) functional situation is vividly imagined.

Summing up, Gaut (1999) distinguishes two types of identification: imaginative identification which itself includes affective, motivational and epistemic identification, and empathic identification. For us both types of identification are of great importance because they help a spectator to reflect all the peculiarities (values, norms, positions, feelings etc. of characters) of the presented situation and comprehend it in the best way.

Arguing about the empathy in movies, one has to mention the importance of human representation and particularly, the role of the human face for scenes of empathy. In this sense, Bézaz (1970) supposes close-up of human face, as a cinematography technique, is a central point in cinema because it refers to prelinguistic communication.

Human facial expressions not only transfer information about emotions, but forces and elicit affective and empathic response. Watching human face one can receive a response through the mimicry, emotional contagion (as a phenomenon of "catching" (reaching) other's emotions, for example in situations when a movie character laugh and smile, a spectator starts to smile as well) and as a form of facial feedback (Plantinga, 1999).

Empathy with a movie character reflects the capacity "... to know, to feel, and to respond congruently to what another is feeling" (Plantinga, 1999, p. 245).

In general empathic response while watching a movie depends on affective congruence within the narrative context of the movie, character engagement (or identification), film genre and style and special cinematographic techniques (Plantinga, 1999). Empathy is a time demanding

process, and as well as emotions take time to catch. Individual differences of spectator vary capacities for both, understanding and reacting to others' emotional states. Some spectators are able to read and reply other's emotions adequately, accurately, and faster than others. On another hand some of them are more prone to mimicking other's emotions, at the time when others react emotionally to others. Gender may be also a point of difference in empathic experience. For example, female, at least in Western culture, statistically, appear more empathic, sensitive in recognizing and interpreting other's emotions (Hall, 1993).

When one empathizes with a movie character, firstly, one mentally simulates the condition of the character, not being this person, but just visualising his/her thoughts and feelings, and, secondly, one has congruent emotions to the ones of the character, which intersects with solidarity of his/her values, desires and goals (Plantinga, 1999).

Emotional contagion and empathy are partly determined by allegiance to the character. People are more likely to "catch" emotions from the ones with which they related to themselves and/or find similar with them. Second point is that people will be more emotionally sensitive to the ones they like, whom they personally prefer. Spectator's response to the empathetic scenes depends whether he/she believes the movie character objectively deserves empathy. Sometimes films attempt to elicit empathic response only after a special trial test or a sacrifice made by protagonist character (Plantinga, 1999).

It is a danger to elicit misplaced or unearned emotions, or simply calling sentimentality. To avoid it and to justify spectator's empathy, one has to enclose scenes of empathy into special moral context which supposes information about concerned movie character (Plantinga, 1999).

At the same time, movies do not oblige an audience to feel any emotions. More adequately, certain movies invite us to feel emotions. An audience has a right to accept such invitation or to refuse it - it depends on whether the audience is an "educated" one, in a sense of abilities to "read" the keys to identify these emotions (Smith, 2003).

Modern audiences, in general, could be called quite "educated" in comprehending movies. In particular, it is so with younger audience, whose development depends more and more on this audio-visual source of information.

2.3. Video as a Means of Training and Education. Conceptual Issues

Video as a mean of training already has a history for more than 30 years, being in progress, from simple VHS–cassettes till nowadays, when specially compressed digital video, is transferred via the Internet on every turn, and when video is played not only in school classes, but widely used in online education also.

Today the World Wide Web is overfilled with offers on Distance Courses that frequently use video-conferencing as an important feature. In most cases all of these resources have no methodological or psychological base behind them (there is even no need to speculate about results of these training...) but, unfortunately, they have only commercial goals to achieve. In this regard, lots of psychological and instructional conferences, which subjects directly it is connected to training technologies and modern means of training (ED-MEDIA, DIVERSE, EARLI etc.), pose calamity issue of efficiency of this new technology for distance education. But these are all present-day questions, and I only, have the right to determine range of issues, and turn back to the questions of the thesis.

Average viewer spends several hours in front of the TV, and though some social psychologists are sometimes distressed about this fact, it refers much more to the force of TV and Video as educational tool (Meisel, 1998).

Usage of video, basically, is reflected in two categories: video as a *process* and video as a *product*. Use of video, as a process is important, for example, for an estimation of visible behavior of separate people or group of people in interaction, during the role games, interviews, etc. Video as a ready product is used for the subsequent viewing, with the purpose of reception of necessary information, communication and training (Elliott, 1984). As a process, video, despite its seeming passiveness, has also many useful applications. Thus video, for example, is related with the *process* of making a film of any activity, in which its participants are involved, and the subsequent viewing - is a *product*.

2.3.1 Areas of Video Usage in Education and Training

Romiszowski (1988) allocates several areas of video usage in education and training:

Psychomotor area

Movies for skill development stimulate recognition of a task and its subsequent accomplishment.

Cognitive area

Documentary movies are shot to save important information and events in reality. *Information movies* stimulate studying the facts, processes, principles and so on.

Emotional area

Convincing movies stimulate viewer to act: films, which use set of known methods of propaganda. *Advertising movies* stimulate purchase and advance consumption of products. *Documentary movies* are frequently non-fiction films based on convincing ideas.

Whether movies can really have emotional influence or even to affect ones personal position? Probably, yes. For example the American army "*Why do we fight?*" was used as a propaganda movie (in controlled experimental settings). Movie has presented only the facts, without any deliberate emotional influence. However, the group which saw that movie contained twice more future soldiers, ready to fight a battle, than equivalent group of those who did not see the movie (Romiszowski, 1988).

When movie is consciously used to put an impact on emotions and personal position, and is used for this purpose special "dodges" (beginning with special play of actors and finishing with the 25th frame effect), it can become the most powerful tool of influence.

For example, the movies shown to the groups of schoolboys have engendered strong antifascist moods. In such cases the teacher should observe and foresee those unexpected, informal relations which the movie shown can generate (Furhammar, 1963).

Area of interaction skills

Role movies. With the aid of the audio-visual medium like video we are able to conduct the presentation of the special problem in the best way and represent the situation that are inadequately described by just words alone. Videos also can widely be implicated as an illustration of some techniques, such as active listening, communicative skills, decision-making etc. The movie can "heat up" the high emotionality of a conflict or interpersonal relations in the conflict situation, which are of a great instructive value (Meisel, 1998).

2.3.2 Dramatization and its Instructional Impact

Preferences of dramatization implemented in the context of the instructional format are also sufficiently clear. For example, movie production, which include actors performance, artistic arrangement and many other expressive tools, enables us not only to focus attention on the key frames that include educational situations, but also to highlight the special mood and emotional "atmosphere" of the situation.

Dramatization partly plays a role in creating the emotional context of the situation, as a way to assure that the viewer reflects on the core idea of the movie (Deighton, Romer, & McQueen, 1989). Surely there are also several hidden dangers, like if the actors' performance is conceived as unnatural, or disrupts the expectations of the audience. In this case it is no longer considered the perfect aid to present a certain message (Hoban, 1953). If the dramatization is not truthful, it could lead to an unpredictable reaction of the audience, and it would consequently switch the viewers' perception of the presented contents.

2.3.3 Features of Video-Technologies for Educational Settings

Integrating different literature sources (Meisel, 1998; Picciotto, Robertson, & Colley, 1989; Schramm, 1977; Wetzel & Douglas, 1994; Ziegerell, 1991) it is possible to define additional key features, of the abilities and preferences of video-technologies for educational settings:

- Information could be presented in visual way quite effectively: animation, speech, music, sound effects and static graphics can later be integrated into the movie. Written printed information can not be as vivid, impressive and memorizing as a video,
- Reality and authenticity. The spatial and dynamic (moving) quality of video-based material makes scenes richer and more realistic, contributing to the authenticity of what is captured (CTGV, 1990),
- Videos can represent the contents of behavior, processes, situations and events that (possibly) take place in reality,
- With the assistance of video, one can observe such complex actions, which couldn't be presented by any other way,

- Dramatization (comparatively with real events) enables to present the complex situation in a particular way, and to attract attention of the audience to the key, instructionally important points,
- Movies can be edited, updated and remade relatively easily,
- While making videos there is a possibility to support it with different audio tracks, which enables to produce multilingual movies.

In spite of all the advantages of the video medium there is still a strong possibility that the viewer could be disappointed with the low quality material. In this case, everything that could be counted as an amateurish, non-professional, boring or too ordinary (the list of possible negative characteristics could be continued) probably would lead to rejection of further watching (Picciotto et al., 1989).

2.4. Brief Comparison of Video, Sound and Textual Sources of Information

Only some people will disapprove the proverb "A picture paints a thousand words". Video adds reality in a context of learning, brings lively factor in the contents of the topic. Video films usually represent a combination of interconnected visual and acoustic streams and reflected in a time prospect (Wetzel & Douglas, 1994).

Following Paivio (1978), any given stimulus can be encoded in our memory verbally or visually or both verbally and visually, and the type of encoding is totally dependent upon the type of information and nature of the presented task. The dual-trace hypothesis argues that pictures are better remembered than words. Words are coded verbally, whereas pictures are coded both verbally and visually. Berger (1970) stresses that the ability to react to and understand information is greatly expanded in a scenario when the information is presented through both auditory and visual way.

But there is one pivotal question: how do these two sources of information influence on complete recognition of a dynamic picture, namely, video?

Visual and oral representations comparison needs much of an effort due to the need of equivalent contents reconstruction (Friedman, 1993). Baggett (1979) uses structurally equivalent visual and sound versions of the film to estimate the semantic information, which these two

sources carry. Structurally equivalent sound version of a short story from "*The Red Balloon*" movie was experimentally compared with dialogues-free video. Pupils of the senior classes were offered to write the summary of episodes directly after viewing (video-version) or listening (sound-version) of a history, and also to write same summary 7 days later. Visualized (video) contents appeared to be more remarkable since the summary of the story reproduced in 7 days was deformed more strongly among listeners, than among ones who watched the movie.

Nugent (1982) compares different components of video (visual, sound, text, etc.) and has made the conclusion, that narrative (stories, fairy tales) achieve greatest expressiveness in combination of visual and sound sources, rather than using one of these sources of the information alone. "Productiveness" increased with increase of information channels' number; the visual information in a combination with any of other sources produces the maximal effect.

Later investigations (Beagles-Roos & Gat, 1983), carried out on the same experimental model, as well as previous (comparisons of the video-version and the sound variant of the story), with 6-11 y.o. participants, has found out, that children listening to the sound version, processed oral information more deeply and made use of the experience mostly for "filling" the *missed details* of the story and to assign the meaning to the narrative. Spectators (children that watched the movie) had an opportunity to process both sound and visual material together, and afterwards provided the supervisors with more adequate conclusions.

Several studies showed significant differences in learning when information is presented in different presentation formats, as video-based versus written text-instruction (Bashman & Treadwell, 1995).

A comparison of video and written instructions was performed in clinical practice and health industry (Renton-Harper, Addy, Warre, & Newcombe, 1999). This study shows that a watch-and-follow instructional video improved plaque removal by an electric toothbrush compared to the use of the traditionally used instructional leaflet. Thus, it was stated that in the early period of learning the use of an electric toothbrush, plaque removal could be improved by using a special instructional video.

Also the comparison of video teaching effectiveness and conventional learning techniques using a pretest/posttest questionnaire was performed (Felton, Keesee, Mattox, McCloskey, & Medley, 2001). The focus of the study was on tablet manufacturing process. Students in the Doctor of Pharmacy curricula at the University of New Mexico College of Pharmacy were randomized into three groups: 1 – students, who watched the tableting video, 2 – students who

read a section of text related to tableting, 3 – students who watched an unrelated video. Thus students who viewed the tableting video showed a statistically significant improvement in posttest scores

Sometimes the separation of channels, like presenting written and filmed materials separately is worth than presenting the combination of both. Muller and Scott (1984) compared the effects of a film presentation, written presentation, or a combination of both as a personal growth training method for students (N=67) and showed that written and film presentation were more effective than the combined source of information.

Regarding the equivalence result for both types of material formats, resources management and expenses, some studies support the print format in national examinations, but still was able to use locally video examination (Shea, Norcini, Baranowski, Langdon, & Popp, 1992).

2.5 Video as a Testing Method. Use of Video for Measurement and Assessment

By using motion pictures with sound, it is possible to present test situations that appear more like the real-life situation than can be done with any type of printed material. This seems particularly advantageous in proficiency tests, in which every increase in resemblance between the test and the actual job situation contributes to relevance of the test as a measure of on-the-job performance.

(Thorndike, 1949, p. 42)

The usage of video and features of video-technologies for educational settings (Meisel, 1998; Picciotto et al., 1989; Schramm, 1977; Wetzal & Douglas, 1994; Ziegerell, 1991; etc.) is presented in Chapter 2.3. Also comparative studies of video and text-based materials are presented in 2.4.

Video-technologies are also used as a part of testing method, or as a supportive instrument in video-based learning. In study by Lawson, Bodle, Houlette, and Haubner (2006) a method designed to enhance psychology students' learning from educational videos was tested. Psychology students (N = 127) watched a video about some topic of social psychology. Some

students of the course watched the video with no additional instructions – control group; other students– experimental group, answered 8 guiding questions in writing while watching the video. Thus, after watching the video, all students took a test containing textbook-related and video-related questions. As a result, students who received guiding questions – experimental scored significantly higher on the video-related questions than did those in the control group.

Usage of video as a video test captured the headlines in area of social competency assessment, already in late 70s- 80s of the previous century (e.g., Jennings, Kendall, & Robinson, 1978 (all cited in Smiderle, Perry, & Cronshaw, 1994); Jones & DeCotiis, 1986; Stricker, 1982; Thornton & Byham, 1982). In 1990s a number of video tests were developed for measuring different aspects of social competence (as an ability to behave appropriately and successfully in occupational social interaction situations) or in combination with job-relevant abilities (e.g., Chan & Schmitt 1997; Curtis, Gracin, & Scott, 1994; Dalessio, 1994; Desmarais, Masi, Olson, Barbera, & Dyer, 1994; Donahue, Jones, & Truxillo, 1996; Frank 1992; Jones & deCotiis, 1986; Weekley & Jones, 1997 (all cited in Funke & Schuler, 1998).

Regarding principles of test construction and performance predictions, almost all video tests belong to the category of work sample tests - which have also been denoted as situational judgment tests. Most video-based tests are intended to assess judgments in job-related situations (Chan & Schmitt, 1997).

Every test item can be considered as a combination of a stimulus component (by which the task for an examinee is portrayed), and a response component (in which the examinee can express a reaction to the stimulus). In a video test, the *stimulus* component is represented with a video scene involving a realistic presentation of a situation (success-critical simulated work situation in case of below presented studies), using its main feature to present realistic situations. The video shot ends in a special contradictory point and the examinee is asked answer. The *response* component of video tests consists most often of a fixed response format in the form of multiple-choice or rating scales (e.g., Chan & Schmitt, 1997; Curtis et al., 1994; Dalessio 1994; Desmarais et al., 1994; Frank, 1992; Jones & DeCotiis, 1986; Smiderle, et al., 1994; Weekley & Jones, 1997). Both questions and response options are presented visually and supported by narration. The uniqueness of mostly all video tests as an assessment method lies in exclusiveness of the stimulus component of the task while the response components are equivalent to those of low-fidelity simulations. Thus, one must characterize most video tests as being *stimulus-centered*, i.e. as methods with high stimulus fidelity but rather low response fidelity (Funke & Schuler, 1998).

Video test validity coefficient is necessarily dependent upon how strongly constructs and/or content of the video test are represented within job performance. In many occupations this representativeness and, accordingly, the validity coefficient for general job performance, is rather low. Regarding video test content, a high-fidelity video test with its realism as well as high-fidelity response components allowing the direct expression of behavioral competency seems appropriate. On the contrary, low-fidelity response components of *stimulus-centered* video tests have low level representativeness regarding the required job behavior. In case when stimulus-centered video tests are to advance beyond the validity level of low-fidelity simulations, then the stimulus components by themselves must provide a validity increase (Funke & Schuler, 1998).

For instance, Jones and DeCotiis (1986) developed a video-based test for use in hiring candidates into guest contact jobs within a hotel company. A significant relationship ($r = .38$) between video-based test scores and supervisory ratings of job performance for 11 guest contact jobs was found in that validation study ($N=362$). In a study with mostly 700 contracted insurance agents, after empirically keying video-based items against turnover in part of the sample, a significant relationship ($r = .13$) between the key and turnover in a holdout sample was defined (Dalessio, 1994). Video-based test designed for use in hiring metropolitan transit operators ($N=368$) was evaluated by Smiderle et al. (1994). Only some evidence to support the reliability, construct validity, or criterion-related validity of the video-based test score was found. No strong support for the content validity of the video-based test was found.

Several studies have systematically investigated the effects of the presentation format (video based vs. written) of Situational Judgement Test (SJT). Chan and Schmitt (1997) conducted a laboratory experiment, showing that a video-based Situational Judgement Test has significantly less adverse impact than a written SJT. Further, Chan and Schmitt (1997) investigate whether differences in video-based vs. paper-and-pencil situational judgement tests were defined by the ethnic origin of applicants. Students perceived the video-based test to be more face valid than the written one, but the face validity differences and test performance differences between Whites and Afro-Americans were also significantly smaller for the video-based situational judgement test. In another study, Richman-Hirsch, Olson-Buchanan, and Drasgow (2000) found that students reacted more favourably to a multimedia format, namely video-based, of a conflict resolution skills test as compared with a written format of the same test. Lievens and Sackett (2006) define that video-based version of an interpersonally oriented SJT had rather lower correlation with cognitive ability than did the written, text-based version of SJT. Also it was mentioned, that

video-based SJT had higher predictive and incremental validity for predicting interpersonally oriented criteria than did the written version.

Video-based test seems to be a rather valid instrument for measuring cognitive constructs. Humphris and Kaney (2000) present a study, regarding a reliability and evidence for a validity of a new method (video-test and scoring scheme for markers) of specific cognitive aspects of trainee clinical communication assessment (recognition and understanding of the consequences of various communication skills) – Objective Structured Video Exam. Results have shown rather high reliability of marking scheme (ICC=0,94). In addition, evidence for the construct validity of the new video method was shown, as a relationship of the video exam method to interviewing behavior (clinical exam) in the communication skills ($r=0,17$, $P<0,001$).

Chandler, Greenspan and Barenboim (1973) compare verbal and videotaped moral dilemmas. Eighty 7-years-olds were solving 1 verbal (written) and watching 1 videotaped story, and by the end had to answer two questions: which of two presented stories characters' was "the naughtiest" and which one "should be punished the most". Extensive probing by experimenters was aimed to determine the subjects' comprehension of the stories and the stability of their responses, but only the initial responses were taken into account for scoring. As a result, the following regularities were defined: moral judgements in response to verbal moral dilemmas were based on consequences, while videotaped moral dilemmas largely based on intentions, suggesting that, the actual age of onset of intentional judgements is earlier than which was previously assumed. Still, unfortunately that research had no further development in regard to more precise investigation of moral competence of other age periods (i.e. adolescence).

Thus it is possible to underline the significance of video-based assessment, used for measuring competencies. Such advantages of video are provided with main feature of video as a stimulus material - high reality and authenticity of presented situation.

But as it was stressed before, the consistency of stimulus and response materials has to be rather high, as it's often not provided with *stimulus-centered* way of diagnostic material investigation. The stimulus component video alone had no impact upon validity. In this sense one must consider preferences of video as a stimulus material for measuring different behavioral competences, taken to account the importance of stimulus and response materials consistency to provide high-fidelity diagnostic instrument.

2.6 Creating Videos for Instructional Needs and Training

While making educational movies, one has to take into account a huge number of factors, not only for keeping the interest of the audience, but mainly to convey the idea and the message of the movie. Using special techniques in educational movie production, one can present the real state of a situation and their relations. In this way, the audience unintentionally becomes involved in an artificial situation, as though it were taking place in reality. There is no need to retell the history of the cinematography, theories of movie production, script production, actors' performance, and movie direction in general. Rather, in this thesis I intend to underline briefly some of the techniques which have to be taken into account in instructional movie's production.

2.6.1 Important Movie Production Techniques

Movie length. While making the special instructional audio-visual programmes it is important to avoid long and boring movies. The most useful are short ones. This is based on the assumption, that long movies can cause passiveness, or "passive watching", when the audience stops to assess the content of the movie critically and precisely (Elliott, 1984). Some of researchers (Baggaley, 1973; Trenaman, 1967; Vernon, 1953) stress the importance of movie length, which might be limited to 25-30 minutes. Regardless to the motivational abilities of a video, an older audience loses interest while watching the movie much faster than a younger one (Wright et al., 1984).

Sound effects. The necessity and efficacy of using sound effects in a movie production is appreciated quite contradictorily, regardless of its ability to arouse and keep the interest of the audience while watching. Sound effects increase the attention of young audience (Alwitt, Anderson, Lorch, & Levin, 1980; Anderson & Levin, 1976; Calvert & Gersh, 1987; Calvert, Huston, Watkins, & Master, 1982; Calvert & Scott, 1989). Switch off the sound when the child will be watching his favorite "*Mickey Mouse*" or "*Donald Duck*" or no less favorite "*Tom and Jerry*" and look: how far the child's interest will decrease. It is very interesting and an extensive topic for discussion, but, unfortunately, not fully intersects with the topic of the thesis; therefore I shall continue with sound effects. Sound markers (provoking sound effects) are used in movies as an

effective instrument to highlight important key frames, expanding performance capabilities of instruction (Bryant, Zillmann, & Brown, 1983; Calvert & Scott, 1989; Watt & Welch, 1983).

Music. The main goal of the musical background in the movie is to create a special atmosphere. Music can stimulate the audience to feel concern with the movie actor, to feel emphatic, to "fit" his happiness, fear, disappointment for instance (Boltz, Schulkind, & Kantra, 1991; Gianetti, 1987; Zuckerman, 1949).

Humour if relevant to the core concept of the movie is used to attract attention as a valid and effective technique for educational media making (Bryant & Zillmann, 1981; Lesser, 1972, 1974).

Frame rate. Researches have stated that simple, fixed and sequential shots seem to be most preferable for teenagers in apprehension of educational video materials (Corbin & McIntyre, 1961).

2.6.2 Important Conditions for Watching Videos

There are several highly important conditions, and by keeping them, efficiency of the educational video can strongly increase (Elliott, 1984): 1) it is always important to guarantee, that each viewer has a free view of the screen, 2) the volume level is correctly adjusted, 3) in a room (auditorium) where the film is screened, there are no disturbing factors (extraneous noise, not comfortable temperature and other factors).

2.6.3 Epilogue

Summing up it is necessary to underline the fact, that importance of medium, and specifically the audio-visual medium (such as a video) in Education and Instruction could be defined only if its key functions and preferences are defined. Additionally it has to be stressed that, technology or a medium would never lead the process of development, but might follow side by side with it, providing new arenas for education. The video-technology can't be examined and used as an original, self-contained, separated from the context studied, tasks and objectives of education. Therefore one have to take into account not only technological preferences of such medium, like video alone, but only with a close interaction with its psychoeducational context, and namely with moral competence assessment.

3. Six Steps toward Moral Competence Measurement. Research Questions and Hypotheses of the Study

3.1 Six Steps toward Moral Competence Measurement

Theoretical propositions and practical implications by Vygotsky (1984), Elkonin (1960, 1989), Leont'ev (1974, 1993), Bozhovich (1968), Piaget (1976, 1983), Erikson (1994/1996), Craig (1992/2000) etc. concerning the main characteristics of adolescence allowed to stress the features of moral development sphere significance at that period of personality formation.

Piaget (1983), Kohlberg (1958, 1964, 1984), Lind (2000, 1995/2004, 2007), Rest (1986, 1994), Gilligan (1977, 1982) affected significantly our understanding of child and adolescent moral development and moral competence assessment, in particular, to understand its *cognitive* nature. Moral interview (Colby et al., 1987) or the moral questionnaire, based on moral dilemma and pencil test (Lind, 1995/2004; Rest, 1984, etc), appear to be most significant and important ways of moral competence measurement.

Theoretical approaches to moral emotions, empathy, in particular and their interrelations with moral behavior (Eisenberg (2002), Harold (2000), Haidt (2001, 2003), Hoffman (2000), Pizzaro (2001), etc.), dual-aspect theory (Lind, 1995/2004) stress the importance of *affective* component (equally with cognitive component) investigation in terms of moral competence assessment.

While assessing moral competence one needs to present moral dilemma which seem to be *real* for the participants, so it will start moral-cognitive processes for solving the moral dilemma (Lind, 2007). Usually moral researchers (Kohlberg, 1968, 1964, 1984; Rest, 1986, 1994) offered adolescents to solve hypothetical moral dilemmas, which lack reality and emotionality in it. Contrastingly real-life dilemmas used by Gilligan (1977, 1982) were too personalized and not usable for everyone in regard to moral competence assessment. *Objectivation* (see. 1.4.5 for details) of moral dilemma contents appears to be sometimes insuperably difficult for teenagers (Karabanova & Podolskij, 2003). So I believe that valuable research on moral competence evaluation should aim the development of an instrument, which would sufficiently create

preconditions for moral contents objectivation, and would represent a realistic, emotionally signed and motivating for decision making situation, containing moral dilemma in it.

Based on instructional and educational technologies' literature (Elliott, 1984; Meisel, 1998; Romiszowski, 1988; Smith, 2003; Wetzal, 1994; etc.), preferences was set for video as a test-material, especially as a challenging stimulus material (Chan & Schmitt, 1997; Dalessio, 1994; Funke & Schuler, 1998; Gracin & Scott, 1994) I suppose that a specially designed diagnostic video could be used: 1) to develop essential motivation and consequently the inclusion of viewers in the core of the presented task, 2) to present a realistic, authentic problem situation content, and at the same time to present the context of this situation as a whole, showing interests and aims of the participants of the situation in question, 3) to make explicit the emotional content of the situation in question: especially feelings and attitudes of the situation participants.

Below, six statements are listed, which are highly important for designing a new instrument to assess and evaluate adolescent moral competence:

- 1) Moral competence may be defined by its three components: *Self-competence* - an ability to adequately perceive oneself as a subject of moral interaction, to realize one's interests, aims, motives, feelings and value definitions caused by moral conflict, and possible ways of behaving in a situation involving a moral choice; *Competence in partner* - an ability to perceive other subjects participating in that situation adequately, to understand their aims, interests, motives, feelings, system of values and possible actions; *Competence in situation* assumes an ability to have an integrated view of the situation, to analyze consequences of events, to comprehend the values and norms, which participants of that situation are guided by and to take into account all the peculiarities of the conflict and the subjects involved in it (Sadokova, 2001).
- 2) A special stimulus material is to be developed, which should be sensitive not only to the cognitive component of moral behavior ("moral reasoning"), but also to its affective component (Eisenberg, 2002; Lind, 1995/2004; etc.).
- 3) The traditional way of presenting moral dilemmas by using short written narratives does not completely meet the above-mentioned requirements as it doesn't highlight the affective component of the moral situation. This causes difficulties for adolescent subjects to comprehend the moral conflict content.

- 4) The stimulus material should be assessed not only by the moral dilemma objective structure but also by the age-related and culturally specific situational context; this would provide a stronger motivation and deepen participants' involvement in the situational context.
- 5) The stimulus material should make it easier to "pull" the participant psychologically into the posed dilemma in a way that is personally significant for him/her. It may be done only in the case where the participant would, in addition to comprehending the objective structure of the situation ("*Who are the participants?*", "*What is the origin of the conflict?*", etc.), be also able to deal with the emotional experience of the participants of moral dilemma; in other words – would be able to empathize with them.
- 6) Thus, I consider that visualized presentation of moral dilemma, as a specially developed video would promote solving the above-mentioned tasks (2-5) to a greater extent. Thus this presentation format of experimental task should be more sensitive in measuring moral competence, than traditional, textual presentation.

3.2 Moral Dilemma Presentation Formats and Assessed Level of Moral Competence. Major Hypothesis

Classical way of presenting moral dilemmas by using text-based written narratives does not completely meet the requirements as being enough emotionally painted, realistic, motivating and significant for adolescents. This causes difficulties for adolescent subjects to comprehend the moral conflict content. Preferences of video, as high motivation and authenticity (CTGV, 1990; Funke & Schuler, 1998; Wright et al., 1984), emotional deepness, identification and empathy-stimulating (Ang, 1982; Gaut, 1999; Plantinga, 1999; Smith, 1999) together used with significantly for adolescent moral dilemma as moral competence measurement with more advancement. Thus, regarding that issue and concluding six stressed above point (see 3.1), which suppose to lead to more comprehensive assessment of adolescent moral competence, the main research question was stated as following:

Research question 1: Whether visualized presentation of different moral dilemmas using specially shot videos will more adequately reflect the level of adolescent moral competence (and

consequently present higher results in assessed level of moral competence), than a traditional textual moral dilemma presentation?

In this regard, the major hypothesis of the study that reflects the general idea of the recent study was formulated.

H₁₀: There are no differences between visualized and textual presentation of moral dilemma with regards to the level of measured moral competence¹ of adolescents.

H₁₁: There are significant differences between visualized and textual presentation of moral dilemma with regards to the level of measured moral competence of adolescents.

3.3 Effect of Age, Gender and Moral Dilemma Type on the Moral Dilemma Solving and Moral Competence of Adolescents. Minor Hypotheses

Theoretical Part of research stressed the importance of psycho-social complexity of adolescent age. During the period of adolescent maturity various cognitive, emotional, and social changes take place. Thus, the level of young and older adolescents' psycho-social development differs on perspective of these three spheres.

Certainly, all the factors, mentioned in 1.5 have some influence on the process of moral dilemma's solving and moral reasoning. But in this thesis I will explore the influence of two factors such as *age* and *gender*, as the most interrelated and decisive ones from the developmental perspective, and crucial for moral and personality development. Also an issue of adolescent relation to the different *moral dilemmas types* was chosen for empirical research as a significant and important factor.

3.3.1 Age Differences in Adolescent Moral Competence

Differences between adolescents of different age (young and older adolescents) in solving various moral dilemmas and assessed moral competence were of greater interest in frames of this Part of empirical study.

Thus the following research questions were posed in the frame of main study:

Research question 2: What are the age differences between young and older adolescents, with regard to the level of assessed moral competence?

In this sense a minor hypothesis of main study was formulated

H₂₀: There are no age differences between results on various moral dilemmas, regarding level of assessed moral competence.

H₂₁: There are age differences between results on various moral dilemmas, regarding level of assessed moral competence.

3.3.2 Gender Differences in Adolescent Moral Competence

During the previous studies, *effect of the gender on achieved results while solving moral dilemmas* was signified but not properly studied. Basically, gender differences in moral reasoning were determined within a set of issues on morals, development and ethics. For instance, there is an opinion that female subjects of different ages generally are more developed than male subjects, or at least not morally weak (Hoffman, 1975). Paying more attention to qualitative gender differences in moral reasoning Gilligan (1977, 1982) supposes that male subjects show orientation on morality of justice, and females follow morality of care. But these were the results in regard to the "moralistic" basis of moral competence, in regard to the level of moral reasoning (Kohlberg, 1984) or justice or care orientation (Gilligan, 1977, 1982). Such gender differences could also be important in the context of moral competence in its functional understanding (Sadokova, 2001), as described in 1.4.4.

The following research question is studied in this work:

Research question 3: *What are the gender differences between results on various moral dilemmas, regarding level of assessed moral competence?*

Such *effect of the gender* was expected to achieve in different types of presented moral tasks within this main part of empirical research. Hypothesis, regarding this issue was formulated.

¹ So here, and later in the thesis, moral competence is understood as a dynamic structure based on norms, values, intentions, motives, feelings etc. of moral situation comprehension, and defined by its three components: *Self-competence, Competence in partner, and Competence in situation* (Sadokova, 2001). For details, see 1.4.4

H₃₀: There are no gender differences between results on various moral dilemmas, regarding level of assessed moral competence.

H₃₁: There are gender differences between results on various moral dilemmas, regarding level of assessed moral competence.

3.3.3 Influence of Moral Dilemma Contents on Solving Moral Dilemmas

The context or type of problem situation which includes moral dilemma could be personally important or not for adolescents. It depends on many factors, but mainly on subjective significance and relation of the moral dilemma to previous experience of adolescent at a given period of his/her psycho-social development. Personal importance of the moral dilemma topic to the adolescent may affect involvement, preciseness and, consequently, results in solving the moral task.

Thus the issue of *influence of different types of moral dilemma on achieved results in moral dilemmas solving* is also of a great importance in the framework of this study. And, probably not the form (text or video) of moral dilemma presentation affects its solving but rather the *type of moral dilemma influences the level of moral competence*.

Consequently two research questions arise:

Research question 4: *Whether the type of moral conflict affects the level of moral competence independently on the moral dilemma presentation form?*

Research question 5: *How does the type of moral conflict affect the moral dilemmas solving results?*

H₄₀: There are no significant differences between different types of moral task presentation and the level of moral competence related to the type of moral conflict.

H₄₁: There are significant differences between different types of moral task presentation and the level of moral competence related to the type of moral conflict.

4. Empirical Research

4.1 Empirical Research. Basic Characteristics

The empirical research contains three parts: **Pilot study** and *two* **Main studies**. The Pilot study took place in 2003, the first Main study was conducted in 2004, and the second Main study was conducted in 2006. I shall present these studies' characteristics, main goals, procedure and method peculiarities, results achieved, summaries and discussion of results. More than 400 adolescents, aged between 11-18 y.o. from the Moscow Secondary Schools took part in this research programme.

4.1.1 General Goals, Scheme and Design of Empirical Research. Variables and Factors

4.1.1.1 Goals of empirical research

Due to the main theoretical fundamentals described in previous parts, and especially in Part *three*, it was needed to reach the following goals within the empirical Part of the research:

- 1) To develop a special method to assess adolescent moral competence,
- 2) To hold an empirical research, using the potentials of video-technology as a mean to study adolescent moral competence development, and compare it with classical textual form of moral dilemma presentation;
- 3) To examine the results of research regarding differences between participants of different ages and gender;
- 4) To learn how the types of moral dilemmas affect the results achieved by students while solving those dilemmas

Particular goals would be discussed within each of the studies (see 4.2.2, 4.3.2, and 4.4.2).

4.1.1.2 Scheme and Design of Empirical Research

The empirical research scheme is presented below in Table 4.1. It shows how the main goals were solved during three (Pilot and two Main) parts of the research.

Table 4.1. General scheme of empirical research

Empirical research					
Parts of research	Pilot Study	⇒	Main Study 1	⇒	Main Study 2
Goals of research	1-2 ²		1-2-3		1-2-3-4

Pilot study served as an exploratory study and was aimed to test an assumption that presentation of video-dramatization of problem situation, which includes moral dilemma, will improve the growth of adolescent moral competence and particularly of its components which are related to objectivation of moral dilemma contents and its analysis.

Main studies: Study 1 and Study 2 were aimed to test the hypotheses on the influence of moral dilemma presentation format on assessed level of moral competence (H_1^3), age and gender differences in adolescent moral competence (H_2, H_3). Hypothesis on influence of moral dilemma contents on solving moral dilemmas with different presentation formats (H_4) was tested in frames of Main Study 2.

4.1.1.3 Variables and Factors.

Based on the posed hypotheses independent and dependent variables were defined respectively:

² The items are listed above in 4.1.1.1

³ For details on hypotheses of research see 3.2 and 3.3

4.1.1.3a *Independent variables:*

Presentation format

Due to the major hypothesis (for details see 3.2), the presentation format of moral dilemmas should be varied from *textual* ones to *visualized*, namely presented by means of text-based and video-based materials.

Age

With regard to the minor hypothesis, age represents an important factor of moral growth and has a crucial influence on moral competence development (see 3.3.1). With a specific age, the moral position becomes more stable and cognitively more advanced. Older adolescents are more progressive in and social spheres than younger ones. Differences between young and older adolescents were already specified. Moral development like the development of logical reasoning, proceeds gradually, from younger teenagers to older ones (e.g., Obuhova, 1995; Craig, 1992/2000; Remshmidt, 1994; Piaget, 1983; Zuckerman & Masterov, 1995; Kohlberg, 1964, Colby et al., 1987). It was interesting to check whether there are differences among two parts of one period – adolescence rather than among several periods of human development. Thus, two periods of adolescence were compared within this study: *early (11-13 y.o.)* and *late (16 – 18 y.o.)* adolescence.

Gender

Previous studies have shown that the gender is important for moral orientation (Hoffman, 1975; Gilligan, 1977, 1982). Some research demonstrates that there exists an essential gender difference: care dominates among women and justice – among men (Gilligan, 1976; Gilligan, 1977).

Based on a new approach to the moral competence understanding and assessment it was interesting to clarify how *girls and boys* differ in their level of assessed moral competence.

Moral dilemma content

Moral dilemma content is extremely significant for the process of moral dilemma solving and it was proven by a number of researches (Armon, 1995; Krebs et al., 1986; Walker et al., 1987; Wark and Krebs, 1996, 2000). Teenagers comprehend different moral situations in contrasting manners. In this sense, factors like personal identification (Molchanov, 2005) and empathy (Maner et al., 2002; etc) with the character of a moral dilemma are also significant factors for decision-making and further level of assessed moral competence. In this sense, as a special interest a comparison of *different* (by the

contents of moral norms and varying participants- peers, parents, adults) *moral dilemmas*, and its influence on overall level of assessed moral competence, was realised within posed hypotheses and research questions (see 3.3.3).

4.1.1.3b Dependent variable

In this study only one dependent variable – *level of moral competence* was used. The measurement of this variable determined the objective of the study. Thus in regard to the different age, gender, moral dilemma types, and finally two different moral dilemma presentation formats, it was assumed to assess different levels of assessed moral competence.

4.1.1.3c Further factors

It is clear that not just independent variables (factors) could affect the changing of moral competence as a dependent variable in this study. As it was stressed in 1.5, certain factors like cultural differences, socio-economical status, family, school, and education level, situational factors, personal moral values and previous experience with socio-moral dilemmas could influence appearance of one or another level of moral competence. In this sense the samples for all studies (for details see 4.2.1, 4.3.1 and 4.4.1) were randomly collected and represented the students from the group of same socio-economical status and cultural features namely, as it would be stressed further represent mostly contemporary Russian low middle-class.

Yet some factors like family, school and educational level, personal moral values and previous experience with moral dilemmas were not properly included in the design of research and were not controlled in the framework of this study due to the reasons of organizational limitations. Nevertheless all the factors mentioned are of great importance, and are supposed to be studied in the future as well.

4.1.2 Method of Empirical Research. "Adolescent Moral Competence Test"

A prototype of the test "Moral Dilemmas" was used to evaluate the level of moral competence in all three studies. "Moral Dilemmas" test was developed in the framework of the international project "MAMOS" (Karabanova & Podolskij, 2003). Within this test, a teenager was

offered to judge moral dilemmas, the content of those , which were close to his/her real life situations

"Adolescent Moral Competence Test" (AMCT)

The AMCT consisted of two parts: 1) *stimulus material* and 2) *paper & pencil test*.

Stimulus material: problem situation, which includes moral dilemma, is presented during both Pilot and Main studies in two different manners: 1) in a traditional way, as a written text, and 2) as a specially shot video (for example see Figure 4.1). Empirical study includes a comparison of these two manners of presentation.

Paper and pencil test was specially elaborated for this study and reflected the concept of moral competence.



Figure 4.1. A shot from the video "Misha"

4.1.2.1 AMCT. Stimulus Material

Likewise in the number of previous studies which used the Kohlberg's interview method or Lind's judgment test (see 1.6.1 and 1.6.2), the respondents were offered to acquaint oneself with a moral dilemma (complex problematic situation that contains two or more competing moral norms)

Firstly, topics for moral tasks (moral dilemmas) should reflect meaningful subject matter of a contemporary Russian teenager, and should be sensuous to the present-day moral values. On

the other hand, tasks related with issues of parents and children relations, peers relations, financial and personal confidence, etc. seem to be eternal and significant for all ages and for the period of adolescence in particular.

Secondly, the way the stimulus is presented plays a significant role for the whole process of moral competence evaluation. Thus, due to the major hypothesis (for details see 3.2) the way moral dilemmas are presented should be varied from *textual* to *visualized* presentation format, namely by means of text and video materials, correspondingly (this point reflects the significant issue of the work, and already has already been described in previous parts).

4.1.2.2 AMCT. Paper and Pencil Test

I need to mention that the new method of adolescent moral competence evaluation, along with some similarities, also has some meaningful differences to be compared with previously used methods. First of all, it relates with the main object of evaluation, namely moral competence. Most of the previous methods for moral competence evaluation were aimed to measure the stage (Kohlberg, 1984), moral competencies and moral preferences or attitudes (Lind, 2000) or schema (Rest et al., 1999) of moral reasoning, which displayed the level of respondent's moral competence. The present study deals with the same object - moral competence - but considered in a special manner. In accordance with the model of moral competence, defined earlier in the theoretical introduction of the present paper (for details see 1.4.4) a number of parameters (for details see Appendix 1) were distinguished to represent the contents of this model. Finally, with regard to these parameters special questionnaires to assess adolescent moral competence were developed in frames of this empirical research.

4.1.2.3 Data Collection Procedure in AMCT

Before starting the empirical research one question rose: whether to collect qualitative or quantitative data, to make a conclusion of a moral competence level of a certain student. As it was perfectly noticed, "quantitative and qualitative methods are more than just differences between research strategies and data collection procedures. Those approaches represent fundamentally different epistemological frameworks for conceptualizing the nature of knowing, social reality, and procedures for comprehending these phenomena" (Filstead, 1979, p.45) and within this research, the method for "comprehending" and assessing the "nature" of moral competence is still being sought.

So being informed about the advantages and limitations of both of them, the dilemma was to choose one of the methods, which would not underestimate a student's answer, and would not overestimate the interpretation of results. In general, research with qualitative data has a monopoly on interpretation, while the quantitative research reaches its results and conclusions quasi-automatically (Bauer, Gaskell, & Allum, 2000).

The special use of qualitative data collection methods is primarily regulated by the type of research questions being asked. Being in the process of decision-making whether to use one or another research method, one had to follow several criteria for determining if qualitative methods are more appropriate for the research question (Bachiochi & Weiner, 2002).

The first question asks the researcher: whether the *context is central for research questions?* Yes, for this research the context of the study is rather important for the interpretation of results.

For the second question which asks if the *participant's interpretation is supposed to be central for research questions?* Definitely, the closed-ended questions (as it would be shown below) wouldn't fit for the goals of the study – this type of questions do not provide the research participants with the opportunity to fully explain their conceptions, as to why they feel the way they do.

Is the *importance of richness or depth of data* crucial or not? – states the third question.

In this research, a greater depth of respondent's answers and their explanations is required. To make the decision of one or another respondent's level of moral competence one need to check all the components of the moral competence, which can be only done after the interpretation of all respondent's explanations on the presented moral task.

And the last question is whether the *research has an exploratory orientation?* Yes, the research questions do not readily lead to clear operational definitions, especially in a new area of research, and new methods of moral competence evaluation.

On the other hand, I was more interested in collecting the real thoughts of students, not to narrow the possibilities for them to describe their ideas, and not to simplify the task for them. The intention of collecting the qualitative data was to 'empower', to 'give voice' to adolescents, rather than treating them as simple subjects whose behavior is to be quantified and statistically modelled (Bauer et al., 2000). For this reason, open-ended questions were used for the most of the items in the questionnaire. It is clear that deliberately I condemn myself on difficulties with interpretation and following validation of such method of diagnostics. However, from my point of view that was (and is) the only adequate way to assess such constructs like moral competence and moral behavior. For example, by constructing the questionnaire using multiple-choice

questions one consciously simplifies the task for respondents and consequently, limits the possibilities to assess the desirable information and would not give the valid qualitative data concerning the moral competence of adolescent respondents.

The main objective for a researcher in acquiring qualitative information from students is to be able to see "through the eyes of those being studied" (Bryman, 1988, p.61). Therefore, the type of questionnaire acts as an instrument to acquire the level of moral competence. After presenting the stimulus materials one has to take into account all the peculiarities of such a target group as "adolescents". It has to be rather simple, include non-complicated questions and not boring, so it does not destroy the motivation previously built by the stimulus material.

4.1.2.4 Data Processing Method in the AMCT

After collecting the data, to prove any hypothesis, it has to be statistically tested. For that reason the qualitative data has to be transformed into quantities, so that it could be compared later in statistical packages (SPSS, for instance).

Therefore the explanations (the answers on moral task questionnaires), which would be collected after the test, should identify the categories and subcategories of moral competence, which will form the scale and the future coding. It was partly the task of the expertise during the Pilot study. However, even in the case of Main studies, the expertise was still "measuring" respondent's answers, and giving the estimations and special grade for each answer, to form a scale by evaluating qualitative answers. Thus, almost on all questions of the questionnaires (besides close-ended questions, and questions which reflect relation to one or the other of presented movie characters) the scale of three points were used, which measured the level of respondent's competence, namely: **1- Explanation DOESN'T uncover the right answer** (wrong or non-adequate answer), **2- Explanation PARTLY UNCOVERS the right answer** (right, adequate answer, which doesn't include all the peculiarities of the situation or includes them only partly), and **3 - Explanation FULLY UNCOVERS the right answer** (right, adequate answer, including all the peculiarities of situation). Full details of each question for each questionnaire, data input and processing technique etc. will be presented in the further description of Pilot (see 4.2.3.3a and 4.2.3.3b) and Main Studies (see 4.3.4.4a, 4.3.4.4b, 4.3.4.4a and 4.4.4.4b) and in Appendixes part (see Appendix 1).

After collecting all necessary data and coding procedure, the quantities were inserted in the table of SPSS version 13. Due to the exclusion of unpredictable and unclear statistical results,

inadequate answers given by students (absence of more than 50% of answers in questionnaire, or absolutely non-adequate answers on all questions) were not used in further statistical processing.

4.2 Pilot Study

4.2.1 Sample

The Pilot study sample consisted of 20 students, both boys and girls, aged between 14-15 y.o. from the Moscow Secondary School N798, with profound study of English. Such sample was randomly compiled with the 9th Grade students from that school. Students represented in Pilot study were children from the middle-class Russian families.

4.2.2 Goals of the Study

The **aim** of the Pilot study was to evaluate potential possibilities of video-dramatization (as a specially shot video) for adolescent moral competence measuring.

Therefore, the **goals** of Pilot study were:

- 1) To define the criteria using expert appraisal, that would characterise adolescent moral competence whilst solving tasks with moral dilemmas;
- 2) To develop special scenarios, to prepare and shoot video, containing dramatised moral dilemma;
- 3) To form comparable Experimental and Control groups with a relatively equal initial level of moral competence;
- 4) To conduct empirical study, aimed at examining video-dramatization as a means of studying adolescent moral competence development, compared with textual form of moral dilemma presentation.

The main **assumption** of the Pilot study postulates that the visualized presentation of moral dilemma using specially shot video is supposed to be more adequate taking into account psychological features of adolescents and characteristics of adolescent moral development. Thus,

it is expected to achieve significant differences between visualized and textual presentation of moral dilemmas.

4.2.3 Method and Design of the Study

The AMCT-test was used for the evaluation of moral competence level. Main features of this test were already described above in 4.1.2

4.2.3.1 AMCT. Stimulus Material: Tasks "Friends" And "Misha"

In this study, two moral tasks were used as a stimulus material for the test: tasks "Friends" and "Misha".

In the problem task "Friends" the dilemma was between two contracting wishes – to say the truth and probably to disappoint a friend and consequently to destroy good friendship or to tell lies, while being not honest with a friend.

Moral task "Misha" is a story about the young man who appeared to be in a situation of a moral choice between two principles: to tell the truth and to keep confidential relations with parents, but, thus, most likely to be upset and to upset his friend, or, deceiving parents and spending time together with the friend. Based on the methodology of developing instructional videos, described in *Chapter 2* of the recent paper (features and advantages of video, special techniques of making effective video clips etc.), professional experience and intuition, a scenario of a video film has been written, which in future was shot, cut and recorded as a short instructional video (diagnostic video "Misha" – see Figure 4.2).

In accordance to that scenario, an equivalent textual version of the problem situation "Misha" was prepared. The contents of moral dilemmas (moral tasks "Friends" and "Misha") used in text-based assessment and it is possible to find it in Appendix 2 and Appendix 8



Figure 4.2. A shot from the video "Misha"

4.2.3.2 Assessment Design of the AMCT

Regarding the above-mentioned structure of moral competence, special questions were framed (later on they determined the contents of questionnaires for the tasks "Friends" and "Misha") to analyze each component of moral competence: comprehension of aims, motives and position in problem situation (in dependence on its outcomes), orientation in goals and intentions of participants in a situation, opposition of their interests, intentions and goals, an ability to guess possible ways of their behavior on the basis of analyzed leading motives, understanding of others feelings - participants of this situation and a capacity to sympathize with them in different outcomes, etc.). The questions were constructed in an open-ended form so that does not limit respondents from prove their comprehension of any kind of problem situations. These questionnaires were completely similar both for the written task and for the experimental movie, independently in a form of presentation.

In total, nine questions (including one subquestion) have been presented to the students in the pretest task "Friends". The examples of the questions were: *"Whom do you sympathize in this situation?"*, *"Wherein does a conflict of this situation lie?"*, *"How can the main hero reason in this situation?"* etc.

Sixteen questions (including four sub-questions) represented the questionnaire for task "Misha" in total. The examples of the questions are: *"What do you think of heroes (i.e. participants of the situation): Misha, Misha's parents, Snake?"*, *"Wherein does a conflict of this situation lie?"*, *"How this*

situation is seen by parents' eyes?", "How can Misha argue in this situation, making a decision on how to act?", "Whose aims do you find most worthy in this situation?", "What do you think about friendship between Misha and Snake?" etc.

The whole list of questions for moral dilemmas "Friends" and "Misha" could be found in Appendix 3 and Appendix 9.

4.2.3.3 Study Design

The whole sample (20 students) was divided into two similar (by amount of boys and girls) groups: Control (N=10) and Experimental (N=10) groups. Students of the Control group solved moral tasks using written narratives both in pretest – task "Friends", and in main part of the study – task "Misha". Experimental group solved the pretest task – task "Friends" using written narratives and watched (instead of reading narratives) the experimental movie "Misha" in the main part.

The Pilot study design is presented in the Table 4.2.

Table 4.2. Design of the Pilot Study

Group	Task	Moral task " <u>Friends</u> " (Pretest)	Moral task " <u>Misha</u> " (Main part)
Control		Class 1 ⁴ – Text ⁵ " <u>Friends</u> "	Class 1 – Text " <u>Misha</u> "
Experimental		Class 2 – Text " <u>Friends</u> "	Class 2 – Video " <u>Misha</u> "

The pretest and the main part of the study were performed with an interval of three days.

4.2.3.3a Data collection design

Data collection scheme was similar for both groups (Control and Experimental) and for both tasks ("Friends" and "Misha"). All groups before presenting the stimulus material (videos and written texts) were provided with a short introduction, which played a motivating role and prepared students for the test: *"Dear friends, one day difficult situations happen in life of every young boy or*

⁴ The real names of the classes are different from the ones used here

⁵ *Text* and *Video*– are presentation formats in which the moral task would be presented to students

girl. Even more so happens in life of adult persons like you are. In such difficult situations one has to make a decision, choosing one way of doing, sacrificing to something... Now you will get acquainted with a story of ... (name of task), that got in trouble. After you will get to know this story, we will ask you to answer some questions concerning this story. Nobody, besides us would see your answers, it is not an exam, and there will be no grades for this work, as there are no bad or good answers, there are only YOUR answers, which are of a great importance for us. We will be very grateful for your help. If you need some help, or if you do not understand something do not hesitate to ask us. Now let's start!"

Stimulus material was presented for three minutes to the groups, who had to read the moral task (moral task "Friends" or "Misha"), and five minutes to the group, who had to watch the video "Misha" (average length of the video). Then, the written tasks were taken away or in case it was with video -it was turned off.

After a short emotional arousal, this happened mostly every time after presenting a moral task every student has been receiving a personal questionnaire (see Appendix 3 and Appendix 9). The students were specially asked to: *"Complete the questionnaire personally, and not copy the answer of the neighbour as there are no right or wrong answers. Please, answer the questions in a way "as you think" and explain your opinion in the most complete way, taking into account all the peculiarities of the situation. If you have some questions concerning the question in test, do not hesitate to ask. Let's start!"* The experimenter answered the students' questions only generally, not giving them real help in answering the questions and filling the questionnaires. After filling the questionnaires, students in case of pretest were asked to be ready to participate in the next part of the study and in main part of the study all students were greatly thanked.

4.2.3.3b Input and data processing

Student answers (explanations on questions) were evaluated on the basis of the specially elaborated assessment criteria; accordingly, every answer had one or the other quantitative meaning. As it was stressed before, every question of the questionnaire was transferred from the form of qualitative explanation to the possible quantitative grade. Several PhDs, University teachers and psychology students were reading the answers (explanations) of all the respondents, trying to realize the grade of the answers. After collecting all *expert* answers and explanations of their ranking criteria, the scale was built. This process took place within the Pilot study and partly in the Main study, until the right criteria of measurement was completely elaborated. The examples of given grades could be easily find in the Appendix 1.

Moral Task "Friends". Questionnaire items. Expert appraisal and ranks

As it was stressed before, nine open-ended questions were presented to the subjects in the questionnaire for pretest task "Friends". Due to the expert appraisal and qualitative evaluation, answers to the questions *"How would you behave if you were in shoes of main hero? Why"*, *"How would the other participants treat hero's behavior if she makes the same decision like you wish to make?"*, *Whom do you sympathize in this situation? Why? "*, *"What do you think about the participants of this situation?"*, *"Wherein does a conflict of this situation lie?"*, *"How can the main hero argue in this situation, making a decision on how to act?"*, *"How is it right to act? "*, *"What do you think: why can't the hero behave in the right way and not in a contradicting way; what are his motives to do so?"* were scaled as follows: **1- Explanation DOESN'T uncover the right answer** (wrong or non-adequate answer), **2- Explanation PARTLY UNCOVERS the right answer** (right adequate answer, which doesn't include all the peculiarities of the situation or includes them only partly), and **3- Explanation FULLY UNCOVERS the right answer** (right adequate answer including all the peculiarities of situation).

Additionally, the special index, which was named *"Identification Index" (II)* has been calculated in the task "Friends". Such *Index* reflects the engagement of a student with moral dilemma character, which could appear during reading/watching the moral task. The *II* was counted by comparing answers on two questions, aimed on uncovering relations to the moral dilemma characters and the depth of understanding them: *"What do you think of heroes"* and *"Whom do you sympathize in this situation? Why?"*. The results were qualitatively compared and than ranked by the following scale: **1- Explanation DOESN'T show understanding of moral dilemma characters, and show no engagement or sign of identification**, **2- Explanation PARTLY shows students' comprehension of moral dilemma' characters, but does not show deep engagement or deep identification with characters**, and **3- Explanation FULLY UNCOVERS understanding of moral dilemma characters, and shows engagement and identification with dilemma's characters.**

The full list of questions and grades could be found in Appendix 3.

Moral Task "Misha". Questionnaire items. Expert appraisal and ranks

Fourteen questions were presented in questionnaire for task "Misha", and all of them were *open-ended* ones. Questions: *"How would you behave if you were in Misha's shoes?"*, *"How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?"*, *"Do you respect the parents' attitude? Why?"*, *"How is the situation viewed by Parents?"*, *"How can Misha argue in this situation, making a decision on how to act?"*, *"What shall the parents of Misha feel if he will NOT give back the change but*

spend it on the gift for his friend?", "What will Misha feel if he returns the change but his parents refuse his request for money?", "What do you think about friendship between Misha and Snake?", "What would happen if Misha gives the change back to the parents?", "What would happen if Misha buys a gift for his friend with the change?" were scaled as **1- Explanation DOESN'T uncover the right answer** (wrong or non-adequate answer), **2- Explanation PARTLY UNCOVERS the right answer** (right adequate answer, which doesn't include all the peculiarities of the situation or includes them only partly), and **3- Explanation FULLY UNCOVERS the right answer** (right adequate answer, including all the peculiarities of situation). Question *"Wherein does a conflict of this situation lie?"* was scaled by: **1- Explanation DOESN'T uncover the right answer** (wrong or non-adequate answer), **2- Explanation PARTLY UNCOVERS the right answer** (right adequate answer, which doesn't include all the peculiarities of the situation or includes them only partly), and **3- Explanation FULLY UNCOVERS the right answer** (right adequate answer, including all the peculiarities of situation), **4- Explanation FULLY UNCOVERS the right answer and encloses the Empathy** (right adequate answer, including all the peculiarities of situation).

As with the task "Friends", the "*Identification Index*" was measured within task "Misha". Likewise in task "Friends" The *II* was counted by comparing the answers on questions on relations and deepness of the moral dilemma's characters understanding: *"What do you think of heroes: -Misha, -Misha's parents, -Snake?", "Whose aims do you find most worthy in this situation?"* and *"Whom do you sympathize in this situation? Why?"*. The results were qualitatively compared and then ranked by scale: **1- Explanation DOESN'T show understanding of moral dilemma characters, and show no engagement or sign of identification**, **2- Explanation PARTLY shows student's comprehension of moral dilemma's characters, but does not show deep engagement or deep identification with characters**, and **3- Explanation FULLY UNCOVERS understanding of moral dilemma characters, and shows engagement and identification with dilemma's characters**.

The full list of questions and grades could be found in Appendix 9.

4.2.3.3c Statistical processing of achieved results

Due to the posted goals, collected data was processed using the following procedures:

- 1) Descriptive Statistics. This test was used to describe frequencies of answers, especially to compare several groups on answering one or another question.

- 2) Non-parametric statistics (Mann-Whitney Test). This test was used to compare Control and Experimental groups, taking into account that the groups were not equal by sample-size, and that some items (answers on some questions) were absent.

4.2.4 Results

Results achieved in pretest and main part of the Pilot study would be discussed below.

4.2.4.1 Results of Pretest

The primary goals of pretest were: 1) to check an equality of Control and Experimental groups on the parameters from the point of view of measurement of expected effect; 2) data collection, which would characterise key features of moral task (task "Friends") solution both by Control and Experimental group subjects.

After collecting the student's explanations on presented items of questionnaire on task "Friends" all this data were transferred into quantitative form for further statistical processing. Certain questions ("*How is it right to act?*", "*What do you think: why can't the hero behave in the right way and not in a contradicting way; what are his motives to do so?*") were not processed due to the incompleteness of answers given by most students to them. These questions surely supplemented the entire picture but didn't reflect the basic components of the results regarding moral competence of the student. In this sense, the answers on following questions represented a big interest: "*How would you behave if you were in shoes of main hero? Why*", "*How would the other participants treat the hero's behavior if she makes the same decision like you wish to make?*", "*Wherein does a conflict of this situation lie?*", "*How can the main hero argue in this situation, making a decision on how to act?*", and results on "*Identification Index*".

4.2.4.1a Statistical analysis of differences between Control and Experimental groups (moral task "Friends")

Table 4.3 contains descriptive statistics of answers on pretest task "Friends" by Control and Experimental groups.

It is easy to notice, that the average values of all five estimated items (questions "*How would you behave if you were in shoes of main hero? Why*", "*How would the other participants treat hero's behavior if she makes the same decision like you wish to make?*", "*Wherein does a conflict of this situation lie?*",

"How can the main hero argue in this situation, making a decision on how to act?" and "Identification Index") were more or less equal in both groups and varied from M=1,1 for the first parameter up to M=2,2 for the fourth parameter.

Table 4.3. Presentation format differences of students' answers- means and standard deviations (moral task "Friends")

Group - Control/Experimental	Control (text)		Experimental (video)	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in shoes of main hero? Why	1,10	,32	1,20	,42
How would the other participants treat hero's behavior if she makes the same decision like you wish to make?	2,20	,92	2,10	,88
Wherein does a conflict of this situation lie?	2,20	,92	2,00	,82
How can the main hero argue in this situation, making a decision on how to act?	1,90	,74	2,20	,79
Identification Index	2,00	,94	2,10	,99

Statistical analysis has confirmed the equality of results achieved. There was no item from the questionnaire, which would reveal significant differences between Control and Experimental groups, nor the tendencies to presumable occurrence of such differences.

Table 4.4 contains results of statistical analysis of registered differences between Control and Experimental group in pretest questionnaire answers.

Table 4.4. Statistical analysis of registered differences between Control and Experimental group (moral task "Friends")

Group - Control/Experimental	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in shoes of main hero? Why	45,000	100,000	-,610	,542
How would the other participants treat hero's behavior if she makes the same decision like you wish to make?	46,500	101,500	-,284	,776
Wherein does a conflict of this situation lie?	43,000	98,000	-,563	,574
How can the main hero argue in this situation, making a decision on how to act?	39,000	94,000	-,892	,372
Identification Index	47,000	102,000	-,247	,805

4.2.4.2 Results of Main Part

The basic aim of the Pilot study main part was to check an assumption whether a dramatized video representation of a problem situation would be more preferable for

objectivation of moral contents of a situation and analysis of such contents, aimed on allocation of essential and insignificant attributes of problem situation and the account of participants engaged in moral dilemma.

Comparative results of two groups on all parameters will be presented, but special attention will be paid to two key items mentioned above, namely *"Wherein does a conflict of this situation lie?"* and *"Identification Index"*. The first question represents an understanding of the moral dilemma main conflict – the central component of moral competence. The second parameter reflects the engagement of a person in the moral task, understanding of characters of moral dilemmas, their moral norms and goals in the presented dilemma, thus having a high moral competence' component which describes understanding of feelings, values and norms of others.

4.2.4.2a Statistical analysis of differences between Control and Experimental groups (moral task "Misha")

There are cumulative results on solving moral task "Misha" by Experimental and Control group subjects are presented in the Table 4.5.

Table 4.5. Presentation format differences of students' answers- means and standard deviations (moral task "Misha")

Group - Control/Experimental	Control (text)		Experimental (video)	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Misha's shoes?	1,30	,48	1,60	,52
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make	1,90	,57	1,90	,88
Wherein does a conflict of this situation lie?	1,40	,97	3,10	,74
How is the situation viewed by Parents?	1,80	,79	2,30	,67
How can Misha argue in this situation, making a decision on how to act?	1,60	,84	2,10	,74
Identification Index	1,30	,48	2,00	,67
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	1,10	,32	1,20	,42
What will Misha feel if he returns the change but his parents refuse his request for money?	1,10	,32	1,10	,32
What do you think about friendship between Misha and Snake?	1,20	,42	1,30	,48
What would happen if Misha gives the change back to the parents?	2,00	,67	1,80	,79
What would happen if Misha buys a gift for his friend with the change?	2,20	,92	2,40	,52

The main result of the primary analysis of the descriptive statistics presented in the Table 4.5 is a conclusion regarding the essential growth results of the Experimental group when compared to those of the Control group. In one of eleven parameters (item 12 - *"What could happen if Misha gave back the change to his parents?"*) the average indice of Control group is higher than a similar parameter of Experimental group and average results are equal for both groups in two questions: *"How would the other participants treat Misha's behavior if he makes the same decision like you wish to make"* and *"What will Misha feel if he returns the change but his parents refuse his request for money?"* (Items 2 and 8). Regarding the rest of the eight parameters, higher results of Experimental group were evident.

Rather captivating regularity was discovered: mostly the same mean results (M=1,10, M=1,30) of students of both groups were found in relation to crucial 7-th, 8-th and 9-th parameters.

It was obvious that the most essential results would be received after making the statistical analysis of results obtained from the students of both Experimental and Control groups. Table 4.6 contains the results of that analysis.

Table 4.6. Statistical analysis of registered differences between Control and Experimental group (moral task "Misha")

Group - Control/Experimental	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Misha's shoes?	35,000	90,000	-1,314	,189
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make	49,000	104,000	-,082	,934
Wherein does a conflict of this situation lie?	9,500	64,500	-3,207	,001
How is the situation viewed by Parents?	32,000	87,000	-1,460	,144
How can Misha argue in this situation, making a decision on how to act?	32,000	87,000	-1,451	,147
Identification Index	22,000	77,000	-2,339	,019
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	45,000	100,000	-,610	,542
What will Misha feel if he returns the change but his parents refuse his request for money?	50,000	105,000	,000	1,000
What do you think about friendship between Misha and Snake?	45,000	100,000	-,503	,615
What would happen if Misha gives the change back to the parents?	42,000	97,000	-,659	,510
What would happen if Misha buys a gift for his friend with the change?	46,000	101,000	-,329	,742

As observed from the Table 4.6, statistically significant differences between results of Experimental and Control groups were discovered on two, 3-th and 6-th items, namely "*Wherein does a conflict of this situation lie?*" ($p=,001$) and "*Identification Index*" ($p=,019$), progress on which has been incorporated in basic assumptions. Despite rather essential distinctions in mean results, no other significant differences or even tendencies of occurrence of any distinctions, has been registered among two groups.

4.2.4.3 Summary of Results

Due to the fact that this part of the study was a Pilot one, the results received were considered as the preliminary ones.

The first *goal* of the pretest was to equalize compared groups. Thus, with certain degree of confidence one could conclude that the compared groups appeared to be equivalent enough from the point of the problem situation comprehension and initial level of moral competence. In this respect the first goal faced with pretest task, can be considered as a solved one.

Data collection was the *second goal* of the pretest. I would like to emphasize especially those questionnaire items, which have been allocated as directly related to objectivation of the moral contents of a problem situation and the analysis of essential and significant attributes of moral dilemma, which allow to make assumption of consequences of behavior, taking into account moral values and estimation of importance of different alternatives of behavior for the subject (Karabanova & Podolskij, 2003). Such parameters were the questionnaire item "*Wherein does a conflict of this situation lie?*" and "*Identification Index*". Quite low results were received on both examined parameters. Thus, only three students from the Control group and three students from the Experimental group were able to uncover the conflict of moral task completely. Four teenagers from the Experimental group and another two from the Control group have uncovered the conflict partly. Accordingly, three and five subjects (that is *40 % of sample*) have not coped with a moral task at all. Among other results, it is necessary to mention high results shown by students of both groups on "quasi-behavioral" parameters, reflecting an image of own behavior while being engaged in such moral dilemma. In addition, "sensual" parameters, namely significance of emotional part of problem situation, achieved high grades in both groups. At the same time it is necessary to note, that those high grades in emotional components of moral competence did not correlate with parameters, which were key ones in terms of the Pilot study that is the presentation format of moral dilemma (text or video).

A confirmation of the assumption that use of dramatization, provided by specially designed and shot video, creates preferable preconditions for essential increase of opportunities for teenagers in objectivation of specific moral contents of a problem situation and its analysis may be considered as a result of *main* part of the study and the study in general.

In concern with the problems revealed in the Pilot study and accordingly, with the prospects of the new research, it is possible to declare the following points:

1) It is necessary to equalize Control and Experimental groups which regards the students' initial level of moral competence more precisely.

2) Studies held within the "MAMOS" project have received significant variability of adolescent moral competence depending on the school moral atmosphere. The recent research pilot study was carried out in the rather prestigious Moscow school, but that school has got the lowest grades with the perceived (by adolescents) moral atmosphere. How will a higher level of perceived moral atmosphere affect the results of research on adolescent moral competence?

4) Regarding the goal, which is related to the AMCT results expert appraisal: criteria of evaluation would be more reliable only within much bigger sample. The sample has to be extended so that the variety of explanations given by the students could be more confidently divided into different groups, ranks and consequently, define the measurement scale. Questionnaire items of the presented questionnaires should be also more precisely revised, to reflect the topic investigated.

5) In accordance with the student's opinions and observations made during the study, the pretest moral task "Friends" appeared to be not as interesting and difficult as the main task "Misha" was. Therefore, moral tasks presented in pretest and main part should be more equalized by complexity of content, its interest and significance for students.

6) The main task of the Pilot study was aimed to discover influence of moral task presentation mode on efficiency of moral dilemma solution. Accordingly, the Main study will be aimed to examine another question: *"to what extent does the form of moral dilemma presentation, and expected in this respect increase of empathy level, affect increase of competence in solving moral dilemmas, and first of al, objectivation of moral task contents"*.

7) Only one age subcategory of adolescence was used in the Pilot study, namely students between sixteen and seventeen. As one of empirical study aims and accordingly one minor hypothesis was to compare the explored effect in different adolescent age subgroups the sample had to be extended from that point of view too.

4.3 Main Study 1

4.3.1 Sample

The Main study 1 sample consisted of 83 students, aged 11-17 y.o. (47% male and 53% female) from the Moscow Secondary Schools N1115. The sample was randomly compiled of 6th and 9th Grade students from the typical Moscow secondary school. Almost all students were children from low middle-class Russian families.

4.3.2 Goals of the Study

Due to the main points discussed in 4.2.4.3 and the hypothesis posed for the Main study 1 (see 4.1.1.2) the following **goals** were stated:

- 1) To define criteria using expert appraisal which would characterize adolescent moral competence whilst solving tasks with moral dilemmas and would help to develop a special testing method (experimental questionnaires for presented tasks).
- 2) To form comparable Experimental and Control groups with a relatively equal initial level of moral competence.
- 3) To conduct empirical study, aimed on examination of video-dramatization as a mean of studying adolescent moral competence development when compared with textual form of moral dilemma presentation.
- 4) To examine the results of research regarding differences between participants of different ages and gender.

4.3.3 Method and Design of the Study

The method (AMCT) used in a previous study also had a pilot character somehow. During the data collection, assessment, and input, the view and contents of the test changed significantly. Firstly, these changes touched the content of the questionnaire, namely the questions formulation. That was made mainly to reflect each component of moral competence model more precisely. Some questions were also reformed to facilitate better understanding of the presented

questions meanings and consequently to provide an acquisition with deeper information by the students.

4.3.3.1 AMCT. Stimulus Material: Tasks "Julia" And "Misha"

Likewise in the previous study, two problem situations that contained moral dilemmas were used in this part. Those moral tasks were "Friends" and "Misha", and were used in a pretest and in a main part study, correspondingly. In the task "Misha" the hero of the story appears in a situation of a moral choice between two principles: 1) to tell the truth and to keep confidential relations with parents but, thus, most likely to be upset and to upset his friend or, 2) having deceived parents to spend time together with the friend. In the problem task "Friends" the dilemma was based on a contradiction of two controversy wishes – to say the truth and probably to disappoint a friend and as a consequence to destroy a good friendship or to tell lies, while being not honest with a friend. With the student's comments and the results achieved, the task "Friends" was not equally complicated for male and female students. Regarding the core of moral dilemma – it was more in feminine problem sphere than in gender independent "unisexual" sphere of problems. Thus, it was more significant for the female students than for male. Secondly, the task "Friends" appeared to be simpler in comparison with the main task "Misha". To equalize not only the groups compared but also the parts of the study, the pretest task had to be more complicated for our subjects. Thus, in the Main study 1 the task "Julia" was used. The dilemma of this moral task grounded between two possible ways of behaving: to say the truth and to have the worse grade for the whole year (which is important for the main hero) or to tell lies and probably as a consequence, to break good relations with a teacher.

The task "Misha" content remained in the initial form as it took place in the Pilot study. The dilemma of this moral task was between honesty in relations with parents but to upset his friend and himself or on contrary, having deceived parents and to spend the time with his friend.

The contents of moral dilemmas (moral tasks "Julia" and "Misha") used in text-based assessment could be found in Appendix 4 and, Appendix 8.

4.3.3.2 Assessment Design of the AMCT

Diagnostic questions were framed (three components of moral competence and their subcomponents) for the above-mentioned structure of moral competence. Such questions determined the contents of questionnaires for the tasks "Julia" and "Misha" to analyze each

component of moral competence: comprehension of own aims, motives and position in problem situation (its dependence on outcomes), orientation in goals and intentions of participants of the situation, opposition of their interests, intentions and goals, an ability to guess possible reasons for their behavior on the basis of analyzed leading motives, understanding the feelings of other people - participants of this situation, and a capacity to sympathize for them in different outcomes, etc.)

In total eleven questions (including 1 subquestion) were presented to the students in the questionnaire for pretest task "Julia". The examples of the questions were: *"Whom do you sympathize in this situation?"*, *"Wherein does a conflict of this situation lie?"*, *"How can Julia argue in this situation, making a decision on how to act?"* etc.

In total twenty questions (including 7 sub-questions) composed the questionnaire for the task "Misha". The examples of the questions are: *"What do you think of heroes (i.e. participants of the situation): Misha, Misha's parents, Snake?"*, *"What feelings does Misha experience?"*, *"Wherein does a conflict of this situation lie?"*, *"How this situation is seen by parents' eyes?"*, *"How can Misha argue in this situation, making a decision on how to act?"*, *"Whose aims do you find most worthy in this situation?"*, *"What will Misha feel if he returns the change but his parents refuse his request for money?"* etc.

The entire list of questions presented in questionnaires for moral dilemmas "Julia" and "Misha" could be found in Appendix 5 and Appendix 9.

In addition to the questions reflecting the components of moral competence and analogically to the "*Identification Index*" in Pilot study, special index – the "*Empathy Index*" was included in the Main study. This index is supposed to be very important one, as it shows the extent to which the teenagers have placed themselves in the situation of moral choice. The index is defined by the comprehension of situation and emotional experience of the main subject of dilemma (in relation with whom the empathy has appeared). Additionally, this innovation also included some changes in the evaluation criteria: instead of qualitative analyze (that was performed in Pilot study) of several questions and definition of integrative grade for the "*Identification Index*" evaluation, a number of questions were used to define the new "*Empathy Index*" in the Main study. Such *Index* was measured both in the pretest and in main part of the study, for moral task "Julia" and "Misha" correspondingly.

4.3.3.3 Study Design

During the Main study 1 the whole sample (83 students) was divided into four quantitatively mostly equal (by general amount and gender percentage) groups: two Control (of two different age groups: 6th and 9th graders) and two Experimental groups (6th and 9th graders). Both Control and Experimental groups solved moral tasks using written narratives in pretest – task "Julia". In the main part of the study all students solved the task "Misha". Experimental group solved the pretest task – task "Friends" using written narratives and watched (instead of reading narratives) experimental video "Misha" (see Figure 4.3) in the main part.



Figure 4.3. A shot from the video "Misha"

The comparison within the age groups – within the group of juniors (Grade 6) and within the group of senior (Grade 9) students, was performed.

Experimental design of the Main study 1 is presented in Table 4.7.

Table 4.7. Design of the Main study 1

Group	Task	Moral task " <u>Julia</u> " (Pretest)	Moral task " <u>Misha</u> " (Main part)
Grade 6 Control		Class 1 ⁶ – Text ⁷ " <u>Julia</u> "	Class 1 – Text " <u>Misha</u> "
Grade 6 Experimental		Class 2– Text " <u>Julia</u> "	Class 2 – Video " <u>Misha</u> "
Grade 9 Control		Class 3– Text " <u>Julia</u> "	Class 3 – Text " <u>Misha</u> "
Grade 9 Experimental		Class 4– Text " <u>Julia</u> "	Class 4 – Video " <u>Misha</u> "

The pretest and the main part of the study were performed with an interval of three days.

4.3.3.3a Data collection design

Likewise in the Pilot study the similar data collection scheme was realised. All four groups (classes, for details see Table 4.7.) before presenting the stimulus material were provided with a short introduction, which played a motivating role and prepared students for the test: *"Dear friends, one day difficult situations happen in life of every young boy or girl. Even more so happens in life of adult persons like you are. In such difficult situations one has to make a decision, choosing one way of doing, sacrificing to something... Now you will get acquainted with a story of ... (name of task), that got in trouble. After you will get to know this story we will ask you to answer some questions concerning this story. Nobody, besides us would see your answers, it is not an exam, and there will be no grades for this work, as there are no bad or good answers, there are only YOUR answers, which are of a great importance for us. We will be very grateful for your help. If you need some help, or if you do not understand something do not hesitate to ask us. Now let's start!"*

Stimulus written material was presented for 3 minutes to the groups which had to read the moral task (moral task "Julia" or "Misha"), and for 5 minutes in case of groups, who watched the diagnostic video "Misha". Later the written tasks were taken away and in case of video-presentation - it was turned off.

⁶ The real names of the classes are different from the ones used here

⁷ Text and Video– are presentation formats in which the moral task would be presented to students

After a short emotional arousal which was usual after the presentation of moral task every student received a personal questionnaire. Then, students received personal questionnaire for the moral task ("Julia" or "Misha" – depending on group, see Table 4.7. for details) and were specially asked to: *"Complete the questionnaire for task... personally, and not copy the answer of the neighbour as there are no right or wrong answers. Please, answer the questions in a way "as you think" and explain your opinion in the most complete way, taking into account all the peculiarities of the situation. If you have some questions concerning the question in test, do not hesitate to ask. Let's start! "*

While filling the questionnaire, the experimenter answered the students' questions, supporting them only motivationally, but not providing them with real answers on questions from the questionnaire. After filling the questionnaire students in case of pretest were asked to be ready to participate in the next part of the study and all students were thanked for their participation in the main part of the study.

4.3.3.3b Input and data processing

The criteria for moral competence assessment and questionnaire items evaluation were elaborated before and during the Pilot study. During the Main study 1, these criteria were reorganized, to achieve more correspondence with the moral competence model accepted within this research. Likewise in Pilot study all answers received from students, their explanations on questions were evaluated by the special expert group of PhD's, psychology teachers from the Faculty of Psychology, Moscow State University (Russia), psychology, philosophy, and linguistics students. After collecting all experts' answers and explanations of their ranking criteria and comparing them, the scale for moral competence measurement was built. This process happened within Pilot study, and partly in the Main study, until the right criteria of measurement was completely elaborated. Examples of given grades and questions orientation, could be found in Appendix 1.

Moral task "Julia". Questionnaire items. Expert appraisal and ranks

As it was said before, eleven open-ended questions, including one multiple-choice question, were presented to the students in the questionnaire for pretest task "Julia". Answers received on questions *"How would you behave if you were in Julia's shoes? Why", "How would the other participants treat Julia's behavior if she makes the same decision like you wish to make?", "Whom do you sympathize in this situation? Why?", "What feelings does Julia experience?", "Wherein does a conflict of this*

situation lie?", "How can the Julia argue in this situation, making a decision on how to act?", "What will the teacher feel if Julia would lie?", "What will Julia feel if she says truth and she'll finish the year with worse marks?", "What would happen if Julia says truth?", "What would happen if Julia lies?" were scaled as **1- Explanation DOESN'T uncover the right answer** (wrong or non-adequate answer), **2- Explanation PARTLY UNCOVERS the right answer** (right adequate answer, which doesn't include all the peculiarities of the situation or includes them only partly), and **3- Explanation FULLY UNCOVERS the right answer** (right adequate answer including all the peculiarities of situation). Multiple-choice question *"Have you experienced the same feelings of Julia once you got to know his difficult situation?"* have 4-grade scale of answers: **1 – "No"**, **2- "Rather NO, than yes"**, **3 – "Rather YES, than no"**, **4- "Yes"**.

Within this study, instead of the *"Identification Index"* used in Pilot study (as it was said above) the special *"Empathy Index"* was calculated for the tasks **"Julia"** and **"Misha"**. The *"Empathy Index"* for task **"Julia"** was counted as a sum of answers on following questions: *"What feelings does Julia experience?", "Have you experienced the same feelings of Misha once you got to know his difficult situation?", "Wherein does a conflict of this situation lie?"* and *"How can the Julia argue in this situation, making a decision on how to act?"*. All questionnaire items for moral dilemma **"Julia"** could be found in Appendix 5.

Moral task "Misha". Questionnaire items. Expert appraisal and ranks

Twenty questions, including two multiple-choice questions were presented in questionnaires for task **"Misha"**. The following open-ended questions like: *"How would you behave if you were in Misha's shoes?", "How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?", "Whom do you sympathize in this situation? Why?", "What feelings does Misha experience?", "What do you think about the participants of this situation? - Misha", "What do you think about the participants of this situation? - Parents", "What do you think about the participants of this situation? - Snake", "Wherein does a conflict of this situation lie?", "How is the situation viewed by Parents?", "Do you respect the parents' attitude? Why?", "How can Misha argue in this situation, making a decision on how to act?", "What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?", "What will Misha feel if he returns the change but his parents refuse his request for money?", "What do you think about friendship between Misha and Snake?", "What would happen if Misha gives the change back to the parents?", "What would happen if Misha buys a gift for his friend with the change?"* were scaled as **1- Explanation DOESN'T uncover the right answer** (wrong or non-adequate answer), **2- Explanation PARTLY UNCOVERS the right answer** (right adequate answer, which doesn't

include all the peculiarities of the situation or includes them only partly), and **3- Explanation FULLY UNCOVERS the right answer** (right adequate answer, including all the peculiarities of situation). Two questions: *"Have you experienced the same feelings of Misha once you got to know his difficult situation?"* and *"Do you respect the parents' attitude?"* had 4-graded scale of answers: **1 – "No"**, **2- "Rather NO, than yes"**, **3 – "Rather YES, than no"**, **4- "Yes"**. The question *"Whose aims do you find most worthy in this situation?"* and *"Whom do you sympathize in this situation?"* was scaled by **1 – "Misha"**, **2 – "Snake"**, **3 – "Parents"**, **4 – "Misha and his parents"**, **5 – "No one"**.

As it was done with the task "Julia", the special "*Empathy Index*", was calculated for the task "Misha" too. Likewise in task "Julia" the "*Index*" was calculated as a sum of answers on several questions: *"What feelings does Misha experience?"*, *"Have you experienced the same feelings of Misha once you got to know his difficult situation?"*, *"Wherein does a conflict of this situation lie?"* and *"How can Misha argue in this situation, making a decision on how to act?"*. The entire list of questionnaire items for moral dilemma "Misha" could be found in Appendix 9.

4.3.3.3c Statistical processing of achieved results

The collected data was filtered for inadequate answers (absence of more than 50% of answers in questionnaire or absolutely non-adequate answers on mostly all questions) – around 5% which were removed from the sample. After "filtering", rest of the data was pasted in SPSS version 11, in which all further statistical processing has been holding.

According to the posted goals, during the data processing several statistical tests were chosen:

- 1) Descriptive Statistics. This test was used to reflect the frequencies of answers, especially to compare several groups on answering one or another question.
- 2) Non-parametric statistics using Mann-Whitney Test. This test was used to compare two different groups like Control and Experimental, junior and senior students, male and female students, taking into account that the groups are not equal by sample-size and absence of some items (like answers on some questions).

4.3.4 Results

In this part of the paper, results of the Main study 1 will be presented: firstly, the pretest results and then, the results of main part of the study.

4.3.4.1 Results of Pretest.

4.3.4.1a Statistical analysis of differences between Control and Experimental groups (moral task "Julia")

As the first step a general conclusion concerning difference/similarity of the Control and Experimental groups were made, comparing Control and Experimental groups within entire sample (both age groups taken together). In this case no descriptive statistics was presented, for the reason of interest in significant differences between Control and Experimental groups. Results of such comparison are presented in Table 4.8 below.

As observed from the Table 4.8, no questionnaire items showed significant differences between Control and Experimental groups, besides one question "*Whom do you sympathize in this situation? Why?*" ($p=,005$). Generally, such comparison would be enough to suppose compared Control and Experimental groups to be almost equal on main components of moral competence.

Still, it was decided to perform a more age-specific comparison between the Control and Experimental groups. Results of Nonparametric test could be found in Table 4.9 and Table 4.10.

Table 4.8. Statistical analysis of registered differences between Control and Experimental groups of whole sample (moral task "Julia")

Group - Control/Experimental	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Julia's shoes?	635,000	1376,500	-1,806	,071
How would the other participants treat Julia's behavior if she makes the same decision like you wish to make?	765,000	1668,000	-,358	,721
Whom do you sympathize in this situation? Why?	526,000	1429,000	-2,797	,005
What feelings does Julia experience?	736,000	1477,000	-,646	,519
Have you experienced the same feelings of Julia once you got to know her difficult situation?	690,000	1593,000	-1,079	,281
Wherein does a conflict of this situation lie?	735,000	1638,000	-,653	,514
How can Julia argue in this situation, making a decision on how to act?	716,500	1619,500	-,850	,395
What will the teacher feel if Julia would lie?	796,500	1537,500	-,016	,988
What will Julia feel if she says truth and she'll finish the year with worse marks?	773,500	1676,500	-,252	,801
What would happen if Julia says truth?	756,500	1659,500	-,484	,629
What would happen if Julia lies?	762,000	1665,000	-,402	,687
Empathy Index	706,000	1609,000	-,895	,371

Results acquired during Control and Experimental groups of junior students comparison showed mostly no differences in the questionnaire items for pretest task "Julia" (Table 4.9). On one item of the questionnaire "Whom do you sympathize in this situation? Why?" boundary value of significance was achieved ($p=,050$).

Meanwhile 9th graders from the Control group have shown higher results of answering the question "Whom do you sympathize in this situation? Why?" ($p=,014$) and key question "Wherein does a conflict of this situation lie?" ($p=,047$). In addition, for the Control group, question "How would you behave if you were in Julia's shoes?" appeared to be on the border of significance ($p=,059$).

Both age groups (junior and senior students) didn't show any significant differences between Control and Experimental groups for such important parameter as "Empathy Index" (for details see Table 4.9. and Table 4.10).

Table 4.9. Statistical analysis of registered differences between Control and Experimental groups of junior students (moral task "Julia")

Group - Control/Experimental –Juniors	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Julia's shoes?	176,000	429,000	-,687	,492
How would the other participants treat Julia's behavior if she makes the same decision like you wish to make?	186,500	439,500	-,335	,737
Whom do you sympathize in this situation? Why?	132,000	303,000	-1,957	,050
What feelings does Julia experience?	162,500	415,500	-1,011	,312
Have you experienced the same feelings of Julia once you got to know her difficult situation?	167,000	338,000	-,878	,380
Wherein does a conflict of this situation lie?	152,500	405,500	-1,327	,185
How can Julia argue in this situation, making a decision on how to act?	197,000	368,000	-,029	,977
What will the teacher feel if Julia would lie?	183,000	436,000	-,429	,668
What will Julia feel if she says truth and she'll finish the year with worse marks?	186,500	357,500	-,330	,741
What would happen if Julia says truth?	192,000	445,000	-,184	,854
What would happen if Julia lies?	183,000	436,000	-,444	,657
Empathy Index	184,500	437,500	-,371	,711

Table 4.10. Statistical analysis of registered differences between Control and Experimental groups of senior students (moral task "Julia")

Group - Control/Experimental –Senior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Julia's shoes?	133,000	269,000	-1,885	,059
How would the other participants treat Julia's behavior if she makes the same decision like you wish to make?	171,000	471,000	-,741	,459
Whom do you sympathize in this situation? Why?	108,000	408,000	-2,469	,014
What feelings does Julia experience?	177,000	477,000	-,478	,633
Have you experienced the same feelings of Julia once you got to know her difficult situation?	168,000	468,000	-,702	,483
Wherein does a conflict of this situation lie?	126,000	426,000	-1,982	,047
How can Julia argue in this situation, making a decision on how to act?	160,000	460,000	-,969	,332
What will the teacher feel if Julia would lie?	147,500	447,500	-1,433	,152
What will Julia feel if she says truth and she'll finish the year with worse marks?	180,000	480,000	-,364	,716
What would happen if Julia says truth?	147,000	447,000	-1,712	,087
What would happen if Julia lies?	152,000	452,000	-1,457	,145
Empathy Index	130,000	430,000	-1,733	,083

4.3.4.1b Statistical analysis of gender differences (moral task "Julia")

It's curious to find significant differences on half of the questions among young female and male students (see Table 4.11). Thus female students showed essentially higher results on answers "How would the other participants treat Julia's behavior if she makes the same decision like you wish to make?" ($p=,042$), "What feelings does Julia experience?" ($p=,006$), "How can Julia argue in this situation, making a decision on how to act?" ($p=,003$) and "What would happen if Julia says truth?" ($p=,021$). These questions reflect central component of moral competence, devoted to comprehension of moral values within presented moral dilemma, comprehension of the main moral conflict. Female students demonstrated significantly better understanding of others feelings, a much extended orientation emotional atmosphere of the whole situation, taking into account circumstances and different ways of moral dilemma solution.

Table 4.11. Statistical analysis of registered differences between male and female students (moral task "Julia")

Sex - Male/Female Students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Julia's shoes?	736,000	1439,000	-,662	,508
How would the other participants treat Julia's behavior if she makes the same decision like you wish to make?	608,500	1311,500	-2,029	,042
Whom do you sympathize in this situation? Why?	619,500	1322,500	-1,813	,070
What feelings does Julia experience?	534,000	1237,000	-2,727	,006
Have you experienced the same feelings of Julia once you got to know her difficult situation?	786,000	1489,000	-,095	,924
Wherein does a conflict of this situation lie?	786,000	1489,000	-,099	,921
How can Julia argue in this situation, making a decision on how to act?	515,000	1218,000	-2,931	,003
What will the teacher feel if Julia would lie?	692,000	1395,000	-1,075	,283
What will Julia feel if she says truth and she'll finish the year with worse marks?	643,000	1346,000	-1,569	,117
What would happen if Julia says truth?	597,500	1300,500	-2,311	,021
What would happen if Julia lies?	668,500	1371,500	-1,422	,155
Empathy Index	582,000	1285,000	-2,081	,037

According to expectations female students (6th and 9th graders) appeared more empathising than male students did.

4.3.4.1c Statistical analysis of age differences (moral task "Julia")

It is easy to find the differences between adolescents of different age groups – Table 4.12.

In principle, answers of older adolescents contained much higher results but statistically these results didn't appear to be significant (see Table 4.12). It is possible to presuppose that such differences between adolescents of different ages could appear within the greater sample size.

Thus, as a main goal, set within a pretest, the equalization of Control and Experimental groups was achieved. Results reached within pretest showed that both Control and Experimental groups of different ages (young and older adolescents) are mostly alike in regard to the main aspects of the initial level of moral competence.

Table 4.12. Statistical analysis of registered differences between junior and senior students (moral task "Julia")

Sex - Male/Female Students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Julia's shoes?	791,500	1611,500	-,094	,925
How would the other participants treat Julia's behavior if she makes the same decision like you wish to make?	671,000	1491,000	-1,396	,163
Whom do you sympathize in this situation? Why?	648,000	1468,000	-1,561	,118
What feelings does Julia experience?	704,000	1524,000	-,998	,318
Have you experienced the same feelings of Julia once you got to know her difficult situation?	694,500	1514,500	-1,053	,292
Wherein does a conflict of this situation lie?	696,500	1516,500	-1,072	,284
How can Julia argue in this situation, making a decision on how to act?	668,500	1488,500	-1,370	,171
What will the teacher feel if Julia would lie?	675,000	1495,000	-1,294	,196
What will Julia feel if she says truth and she'll finish the year with worse marks?	666,000	1486,000	-1,375	,169
What would happen if Julia says truth?	636,500	1456,500	-1,903	,057
What would happen if Julia lies?	770,000	1590,000	-,335	,738
Empathy Index	791,000	1611,000	-,087	,930

As an additional result one could find a prevalence of higher results achieved by female students than male students, especially with regards to the "emotional" competence, namely questions related to the comprehension of affective components of moral dilemma.

4.3.4.2. Results of Main Part

Central aim of the main part of study was to define the effect of stimulus material presentation format on quality of moral dilemma solution by comparing Control (text as a stimulus material) and Experimental (video as stimulus material) groups. *A secondary aim of the main part was* to find the age and gender differences on solving moral tasks, namely among junior - senior, and female – male students. Thus these results of comparison are presented below.

Table 4.13 represents descriptive statistics on questionnaire on task "Misha" for the whole sample.

Table 4.13 Students' answers - means and standard deviations (moral task "Misha")

Whole sample	Control, Experimental, Junior and Senior students together	
	Mean	Std. Deviation
How would you behave if you were in Misha's shoes?	2,3797	,5140
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	1,9114	,6829
Whom do you sympathize in this situation?	2,0886	1,3028
Whom do you sympathize in this situation? Why?	1,7468	,7245
What feelings does Misha experience?	2,2278	,7502
Have you experienced the same feelings of Misha once you got to know his difficult situation?	2,4051	,9938
What do you think about the participants of this situation? - Misha	2,0127	,5882
What do you think about the participants of this situation? - Parents	1,9494	,5286
What do you think about the participants of this situation? – Snake	1,9747	,5986
Wherein does a conflict of this situation lie?	2,0759	,7298
How is the situation viewed by Parents?	1,7595	,7375
Do you respect the parents' attitude?	2,9494	1,0365
Do you respect the parents' attitude? Why?	1,9747	,8161
How can Misha argue in this situation, making a decision on how to act?	2,2025	,7743
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	1,9620	,5871
What will Misha feel if he returns the change but his parents refuse his request for money?	2,0380	,6293
Whose aims do you find most worthy in this situation?	2,3165	1,2765
What do you think about friendship between Misha and Snake?	2,0633	,6064
What would happen if Misha gives the change back to the parents?	2,0506	,5038
What would happen if Misha buys a gift for his friend with the change?	2,0506	,5038
Empathy Index	8,9114	1,7700

It could easily be seen, that answers on questions *"Do you respect the parents' attitude?"* and *"Have you experienced the same feelings of Misha once you got to know his difficult situation?"* have the highest achieved means. Taking into account that measurement of those variables was made with four-Graded scale, such comparison with other results is not representative. These results show that the whole sample generally accepts the parents' attitude on children education initially, and secondly perceive the feelings of the characters engaged in a situation.

Certainly, such results acquired on the whole sample are not informative for Experimental and Control groups comparison.

4.3.4.2a Statistical analysis of age differences (moral task "Misha")

Table 4.14 includes descriptive statistics of junior and senior students on solving task "Misha". Both age groups achieved most high means on items "Do you respect the parents' attitude?" and "Have you experienced the same feelings of Misha once you got to know his difficult situation?". Notably the results of the 6th graders on these questions were higher than results on same questions of senior students.

Table 4.14. Age differences of students' answers- means and standard deviations (moral task "Misha")

Age relation -Junior/Senior students	Juniors (6th Grade)		Seniors (9th Grade)	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Misha's shoes?	2,3750	,5401	2,3846	,49286
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	1,6750	,6938	2,1538	,58663
Whom do you sympathize in this situation?	2,3500	1,2920	1,8205	1,27469
Whom do you sympathize in this situation? Why?	1,7250	,6789	1,7692	,77668
What feelings does Misha experience?	2,0750	,8883	2,3846	,54364
Have you experienced the same feelings of Misha once you got to know his difficult situation?	2,3750	1,1252	2,4359	,85208
What do you think about the participants of this situation? – Misha	1,9500	,5970	2,0769	,57968
What do you think about the participants of this situation? - Parents	1,8500	,5796	2,0513	,45588
What do you think about the participants of this situation? – Snake	1,9250	,6155	2,0256	,58432
Wherein does a conflict of this situation lie?	2,1250	,7574	2,0256	,70663
How is the situation viewed by Parents?	1,6250	,6675	1,8974	,78790
Do you respect the parents' attitude?	3,2000	,9923	2,6923	1,02992
Do you respect the parents' attitude? Why?	1,9000	,8412	2,0513	,79302
How can Misha argue in this situation, making a decision on how to act?	2,0250	,8912	2,3846	,59007
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	1,9000	,4414	2,0256	,70663
What will Misha feel if he returns the change but his parents refuse his request for money?	1,8500	,6622	2,2308	,53614
Whose aims do you find most worthy in this situation?	2,2000	1,1140	2,4359	1,42893
What do you think about friendship between Misha and Snake?	2,0500	,6385	2,0769	,57968
What would happen if Misha gives the change back to the parents?	1,9750	,4797	2,1282	,52212
What would happen if Misha buys a gift for his friend with the change?	1,9250	,4743	2,1795	,50637
Empathy Index	8,6000	2,0229	9,2308	1,42278

Table 4.15 represents nonparametric test results of junior-senior group comparison.

Table 4.15. Statistical analysis of registered differences between junior and senior students (moral task "Misha")

Age relation -Junior/Senior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Misha's shoes?	729,000	1432,000	-,552	,581
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	640,000	1543,000	-1,485	,138
Whom do you sympathize in this situation?	721,000	1624,000	-,590	,555
Whom do you sympathize in this situation? Why?	774,000	1677,000	-,032	,974
What feelings does Misha experience?	597,500	1500,500	-1,951	,051
Have you experienced the same feelings of Misha once you got to know his difficult situation?	626,000	1329,000	-1,552	,121
What do you think about the participants of this situation? – Misha	596,000	1499,000	-2,118	,034
What do you think about the participants of this situation? - Parents	575,000	1478,000	-2,523	,012
What do you think about the participants of this situation? – Snake	562,000	1465,000	-2,575	,010
Wherein does a conflict of this situation lie?	589,500	1492,500	-1,989	,047
How is the situation viewed by Parents?	465,000	1368,000	-3,315	,001
Do you respect the parents' attitude?	618,000	1521,000	-1,646	,100
Do you respect the parents' attitude? Why?	494,000	1397,000	-2,950	,003
How can Misha argue in this situation, making a decision on how to act?	491,000	1394,000	-3,011	,003
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	646,500	1549,500	-1,583	,113
What will Misha feel if he returns the change but his parents refuse his request for money?	757,000	1660,000	-,225	,822
Whose aims do you find most worthy in this situation?	492,500	1395,500	-2,975	,003
What do you think about friendship between Misha and Snake?	493,500	1396,500	-3,253	,001
What would happen if Misha gives the change back to the parents?	705,000	1608,000	-,930	,353
What would happen if Misha buys a gift for his friend with the change?	705,000	1608,000	-,930	,353
Empathy Index	572,000	1475,000	-2,049	,040

Significant differences between junior and senior groups appear on a number of crucial questions: *"What do you think about the participants of this situation? - Misha"* (p=**,034**), *"What do you think about the participants of this situation? - Parents"* (p=**,012**), *"What do you think about the participants of this situation? – Snake"* (p=**,010**), *"Wherein does a conflict of this situation lie?"* (p=**,047**), *"How is the situation viewed by Parents?"* (p=**,001**), *"Do you respect the parents' attitude? Why?"* (p=**,003**), *"How can Misha argue in this situation, making a decision on how to act?"* (p=**,003**), *"Whose aims do you find most*

worthy in this situation?" ($p=,003$), "What do you think about friendship between Misha and Snake?" ($p=,001$) and "Empathy Index" ($p=,040$).

4.3.4.2b Statistical analysis of gender differences (moral task "Misha")

Results of gender comparison are represented in Table 4.16. Achieved results by female students are much higher than males on almost all questions.

Table 4.16. Gender differences of students' answers- means and standard deviations (moral task "Misha")

Sex - Male/Female Students	Male students		Female students	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Misha's shoes?	2,4000	,4971	2,2703	,5082
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	1,8286	,7065	1,9459	,6644
Whom do you sympathize in this situation?	2,4286	1,1704	1,7568	1,2112
Whom do you sympathize in this situation? Why?	1,5714	,6981	1,8919	,7373
What feelings does Misha experience?	2,0571	,8726	2,3514	,6332
Have you experienced the same feelings of Misha once you got to know his difficult situation?	2,5429	,9805	2,2703	,9617
What do you think about the participants of this situation? - Misha	1,9143	,6585	2,1351	,4809
What do you think about the participants of this situation? - Parents	1,9429	,5913	2,0000	,4714
What do you think about the participants of this situation? - Snake	1,9714	,5681	2,0811	,5953
Wherein does a conflict of this situation lie?	2,0857	,7425	2,2162	,6723
How is the situation viewed by Parents?	1,5143	,6122	2,0541	,7433
Do you respect the parents' attitude?	2,9714	1,0706	3,1081	,9656
Do you respect the parents' attitude? Why?	1,9429	,8382	2,0811	,8293
How can Misha argue in this situation, making a decision on how to act?	2,0857	,8531	2,3784	,6811
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	2,0000	,4851	1,9730	,6866
What will Misha feel if he returns the change but his parents refuse his request for money?	1,8571	,6011	2,1622	,6015
Whose aims do you find most worthy in this situation?	2,0857	1,1472	2,6486	1,3787
What do you think about friendship between Misha and Snake?	1,9429	,6391	2,2703	,5082
What would happen if Misha gives the change back to the parents?	1,8571	,4937	2,2162	,4173
What would happen if Misha buys a gift for his friend with the change?	1,8571	,3550	2,2703	,4502
Empathy Index	8,7714	1,9567	9,2162	1,5300

Results of nonparametric statistics test of female and female groups comparison showed the tendency for female students to receive much higher grades (see Table 4.17). Questions *"Whom do you sympathize in this situation?"* ($p=,008$), *"How is the situation viewed by Parents?"* ($p=,002$), *"What will Misha feel if he returns the change but his parents refuse his request for money?"* ($p=,036$), *"What do you think about friendship between Misha and Snake?"* ($p=,024$), *"What would happen if Misha gives the change back to the parents?"* ($p=,002$), and *"What would happen if Misha buys a gift for his friend with the change?"* ($p=,000$) appear to be significant.

Table 4.17. Statistical analysis of registered differences between male and female students (moral task "Misha")

Sex - Male/Female Students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Misha's shoes?	570,500	1273,500	-1,039	,299
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	586,500	1216,500	-,758	,449
Whom do you sympathize in this situation?	426,500	1129,500	-2,657	,008
Whom do you sympathize in this situation? Why?	492,000	1122,000	-1,900	,057
What feelings does Misha experience?	491,000	1121,000	-1,945	,052
Have you experienced the same feelings of Misha once you got to know his difficult situation?	556,500	1259,500	-1,076	,282
What do you think about the participants of this situation? - Misha	530,000	1160,000	-1,589	,112
What do you think about the participants of this situation? - Parents	614,500	1244,500	-,473	,636
What do you think about the participants of this situation? - Snake	599,500	1229,500	-,676	,499
Wherein does a conflict of this situation lie?	587,500	1217,500	-,737	,461
How is the situation viewed by Parents?	393,500	1023,500	-3,094	,002
Do you respect the parents' attitude?	608,000	1238,000	-,473	,636
Do you respect the parents' attitude? Why?	593,000	1223,000	-,650	,516
How can Misha argue in this situation, making a decision on how to act?	514,500	1144,500	-1,608	,108
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	618,500	1321,500	-,403	,687
What will Misha feel if he returns the change but his parents refuse his request for money?	487,000	1117,000	-2,098	,036
Whose aims do you find most worthy in this situation?	501,500	1131,500	-1,746	,081
What do you think about friendship between Misha and Snake?	476,500	1106,500	-2,264	,024
What would happen if Misha gives the change back to the parents?	443,000	1073,000	-3,105	,002
What would happen if Misha buys a gift for his friend with the change?	405,000	1035,000	-3,860	,000
Empathy Index	568,500	1198,500	-,908	,364

4.3.4.2c *Statistical analysis of differences between Control and Experimental groups (moral task "Misha")*

Table 4.18 includes descriptive statistics of Control and Experimental group's comparisons. Results of such comparison shows much higher results on most questions compared, including ones which represent the central component of moral competence – moral conflict comprehension.

Table 4.18. Presentation format differences of students' answers- means and standard deviations (moral task "Misha")

Group - Control/Experimental	Control - Text		Experimental - Video	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Misha's shoes?	2,4048	,5437	2,3514	,4840
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	1,8095	,7404	2,0270	,6003
Whom do you sympathize in this situation?	2,0000	1,2494	2,1892	1,3711
Whom do you sympathize in this situation? Why?	1,7381	,7005	1,7568	,7603
What feelings does Misha experience?	2,0952	,8208	2,3784	,6391
Have you experienced the same feelings of Misha once you got to know his difficult situation?	2,5714	1,0393	2,2162	,9170
What do you think about the participants of this situation? - Misha	1,8810	,5927	2,1622	,5534
What do you think about the participants of this situation? - Parents	1,8095	,5516	2,1081	,4585
What do you think about the participants of this situation? – Snake	1,8095	,5516	2,1622	,6015
Wherein does a conflict of this situation lie?	1,9286	,6398	2,2432	,7960
How is the situation viewed by Parents?	1,5000	,6344	2,0541	,7433
Do you respect the parents' attitude?	2,7381	1,1489	3,1892	,8445
Do you respect the parents' attitude? Why?	1,7143	,6730	2,2703	,8708
How can Misha argue in this situation, making a decision on how to act?	1,9524	,7636	2,4865	,6921
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	1,8571	,5213	2,0811	,6402
What will Misha feel if he returns the change but his parents refuse his request for money?	2,0238	,6044	2,0541	,6644
Whose aims do you find most worthy in this situation?	1,9286	1,1769	2,7568	1,2562
What do you think about friendship between Misha and Snake?	1,8571	,5213	2,2973	,6176
What would happen if Misha gives the change back to the parents?	2,0000	,5410	2,1081	,4585
What would happen if Misha buys a gift for his friend with the change?	2,0000	,5410	2,1081	,4585
Empathy Index	8,5476	1,6110	9,3243	1,8716

Still, to receive an assured answer on posed question of Control and Experimental group's comparison one has to find statistical significant differences between results of these groups

(Table 4.19). One can find significant differences on questions "What do you think about the participants of this situation? - Misha" (p=,034), "What do you think about the participants of this situation? - Parents" (p=,012), "What do you think about the participants of this situation? – Snake" (p=,010), "Wherein does a conflict of this situation lie?" (p=,047), "How is the situation viewed by Parents?" (p=,001), "Do you respect the parents' attitude? Why?" (p=,003), "How can Misha argue in this situation, making a decision on how to act?" (p=,003), "What do you think about friendship between Misha and Snake?" (p=,001), and "Empathy Index" (p=,040).

Table 4.19. Statistical analysis of registered differences between Control and Experimental groups (moral task "Misha")

Group - Control/Experimental	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Misha's shoes?	729,000	1432,000	-,552	,581
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	640,000	1543,000	-1,485	,138
Whom do you sympathize in this situation? Why?	774,000	1677,000	-,032	,974
What feelings does Misha experience?	597,500	1500,500	-1,951	,051
Have you experienced the same feelings of Misha once you got to know his difficult situation?	626,000	1329,000	-1,552	,121
What do you think about the participants of this situation? - Misha	596,000	1499,000	-2,118	,034
What do you think about the participants of this situation? - Parents	575,000	1478,000	-2,523	,012
What do you think about the participants of this situation? – Snake	562,000	1465,000	-2,575	,010
Wherein does a conflict of this situation lie?	589,500	1492,500	-1,989	,047
How is the situation viewed by Parents?	465,000	1368,000	-3,315	,001
Do you respect the parents' attitude?	618,000	1521,000	-1,646	,100
Do you respect the parents' attitude? Why?	494,000	1397,000	-2,950	,003
How can Misha argue in this situation, making a decision on how to act?	491,000	1394,000	-3,011	,003
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	646,500	1549,500	-1,583	,113
What will Misha feel if he returns the change but his parents refuse his request for money?	757,000	1660,000	-,225	,822
What do you think about friendship between Misha and Snake?	493,500	1396,500	-3,253	,001
What would happen if Misha gives the change back to the parents?	705,000	1608,000	-,930	,353
What would happen if Misha buys a gift for his friend with the change?	705,000	1608,000	-,930	,353
Empathy Index	572,000	1475,000	-2,049	,040

4.3.4.3 Summary of Results

What can one say about gaining the goals of the study? The *first goal* was to adjust and test the special experimental questionnaire (based on the structure of moral competence) which was developed in frames of Pilot study.

Likewise in Pilot study, in the Main study to test the main hypothesis of Control and Experimental group results differences, one had to *achieve equalization of the compared groups* with regards to the initial level of moral competence in pretest. Thus, adolescents from both age-periods (6th and 9th graders) were presented with a pretest moral task "Julia", which was presented as a text-based moral dilemma for the whole sample. It could be concluded from the results gathered in pretest, that groups of the same grade (which would further represent Control and Experimental groups in main part of the study) have shown nearly same initial level of moral competence. Surely it might be useful to compare the groups by initial intellectual, emotional and moral development level in pretest. Unfortunately, due to the organizational management and time pressure I didn't have such a possibility.

The general goal of the study was to analyze to what extent the form of the moral dilemma presentation would affect the results of problem solving by adolescents. Significant differences achieved on a half of the items from questionnaire for the main moral task "Misha" by Experimental group (in comparison with Control group), showed a better understanding of the moral conflict, participants of the situation, probable ways of behavior in presented dilemma and better results by "*Empathy index*". Such results confirm the statement that visualized presentation of moral dilemma as a specially worked out instructional video shows higher results in solving moral dilemma by adolescents and consequently higher level of achieved moral competence.

Regarding the question of dependence of achieved results upon sex and age of students - this question is solved in the Main study 2 more precisely. At the same time evident tendencies were found. *Firstly*, the phenomenon of a moral dilemma presentation form was greater among 9th-grade students. Possibly, it could be connected with the fact that a presented task is much closer to the actual problems of the 9th graders. So, probably questions of morality, as well as problems mentioned in moral dilemmas are much more valuable for 16-17 year old adolescents, than to 11-12 year old boys and girls, in regard to higher degree of autonomy, the choice of friends and occupation, and management of own money by older adolescents (Douvan & Adelson, 1966; Bosma et al., 1996) and interest of older students for solving such tasks, where their decision make sense. And, *secondly*, comparably greater effect was found among girls. Still the question of

importance of moral dilemma is decisive for higher results achievement, and is highly dependent on personal significance of moral situation for adolescents. Such significance could be defined by the type of presented situation and its participants.

By the end of the study 1, several perspectives of the future research were settled:

- 1) It is important to study more correlation of explored phenomenon with sex and age of respondents more deeply.
- 2) The contents of moral dilemmas should vary, particularly the type of presented conflict, the structure of its participants (coevals, adults, relatives)

4.4 Main Study 2

4.4.1 Sample

The Main study 2 sample consisted of 333 students of the 6th, 7th, 9th and 10th Grades, aged between 11-18 years (45% male and 55% female) from the Secondary Schools N1273 and N1056, Moscow. The sample was randomly compiled students from the Moscow school with general level of education and low exposure to multicultural and socio-economical differences. All of them were mostly Russians from middle-class families who spoke good and clear Russian.

4.4.2 Goals of the Study

To summarize, with the main results achieved by the studies handled in the years 2003-2004 one can see a presence of significant differences between the Control (textual presentation of moral dilemmas) and Experimental (visualized presentation of moral dilemma) groups concerning a bigger part of questions of the experimental task questionnaire. Students from the Experimental group showed a more complete understanding of the dilemma participants' feelings and an ability to empathize with them in different outcomes of the situation. Moreover students from the Experimental group were able to give more complete and detailed evaluations of all participants in dilemma; they showed a much deeper understanding of what was "really going on" in the situation, what the main goals of the participants and possible means of behavior in the

situation were. Hence, the students from the Experimental group showed far better results and a higher level of all components of moral competence than students from the Control group.

Regarding the perspectives for future research mentioned in the previous study (for details see 4.3.4.3) and posed hypothesis for this study (see 4.1.1.2 for details) the following **goals** were stated:

- 1) To develop special scenarios, to prepare and shoot videos, containing dramatized moral dilemmas including different types of conflicts and participants (coevals, adults, and relatives).
- 2) To define the criteria using expert appraisal, which would characterize adolescent moral competence whilst solving tasks with moral dilemmas, and which would help to develop a special testing method (experimental questionnaires for presented tasks).
- 3) To form comparable Experimental and Control groups with a relatively equal initial level of moral competence.
- 4) To conduct empirical study, aimed at examining video-dramatization as a means of studying adolescent moral competence development, compared with textual form of moral dilemma presentation.
- 5) To examine the results of research involving differences between participants of different ages and gender.
- 6) To examine influence of different types of conflicts and participants (coevals, adults, relatives) on the results of moral dilemmas solving.

4.4.3 Method and Design of the Study

Regarding the goals posed for Main study 2 and corrections made with a previous version of the AMCT (see 4.3.3.1 and 4.3.3.2 for details) updated versions of the questionnaires were used in this study.

4.4.3.1 AMCT. Stimulus Material: Moral Tasks "Natasha", "Misha", "Nikita" and "Andrey"

In the previous Main study two moral dilemmas were used, which were similar to the ones used in that project. Those tasks "Julia" and "Misha" were used in both Control and Experimental group, which correspondingly employed text and video way of presentation. The task "Julia" has

been used as a pretest and the task "Misha" used in the main part of the study. In the problem task "Julia" the dilemma was based on a contradiction of two controversy wishes – to say the truth and to have the worse grade for the whole year (which is important for the main hero) or to tell lies and probably as a consequence to break good relations with a teacher. In the task "Misha" the hero of the story appears to be in a situation of a moral choice between two options: 1) to tell the truth and to keep confidential relations with parents, but, thus, most likely to upset himself and upset his friend, or, 2) deceived his parents and spending time together with his friend.

In the recent study the task "Julia" was replaced by the task "Natasha" in a sense of higher moral complexity of the situation. A new moral dilemma had the following contents: to help the best friend by saying lies and probably as a consequence to break good relations with a teacher, or, to say the truth, save own reputation of an honest person but also cause negative consequences for the future education of best friend (who is of great importance for her) and affect the friendship between them. In this task the choice was between the coeval and the social adult.

The task "Misha" remained in the initial form as it has been presented in the previous studies and the dilemma was between being honest in the relation to parents but most likely to be upset and to upset his friend and on contrary deceiving parents to spend time together with the friend Here dilemma lays between the close adult and the coeval.

Due to one of the goals that was to cover different types of the moral dilemma conflicts and task participants (coevals, adults, relatives) in addition to the previous studies tasks two new tasks were added: "Nikita" and "Andrey" were elaborated in two equivalent forms: as a movie (see Figure 4.4 and Figure 4.5) and as a written narrative.

Moral dilemma "Nikita" contains a contradiction between goodness and justice, helping a poor old lady and satisfaction of own desires. A choice is between unknown stranger who lost his money, an adult in need and own desires.

In the task "Andrey" - "the reason for the dilemma" – the son had taken father's expensive cellular phone without permission to show to his friends and eventually lost it. But the circumstances gave the main hero an opportunity to compensate loss - to steal a phone, which resembled the lost one. A choice had to be done between desire and committing theft.



Figure 4.4. A shot from the video "Nikita"

The contents of moral dilemmas (moral tasks "Natasha", "Misha", "Nikita" and "Andrey") used in text-based assessment can be found in Appendix 6, Appendix 8, Appendix 10 and Appendix 12



Figure 4.5. A shot from the video "Andrey"

4.4.3.2 Assessment Design of the AMCT

Likewise for the previous studies regarding the structure of moral competence, special questions were worked out (later on they determined the contents of questionnaires for tasks "Julia" – in *Main study 1* and later on for "Natasha", "Misha", "Nikita" and "Andrey") to analyze each component of moral competence: comprehension of own aims, motives and position in problem situation (in dependence on its outcomes), orientation in goals and intentions of participants of the situation, opposition of their interests, intentions and goals, an ability to guess possible reasons for their behavior on the basis of analysis of leading motives, understanding the feelings of other people - participants in this situation, and a capacity to sympathize them in different outcomes, etc.)

In total 21 questions (including 4 sub-questions) were presented to the students in the questionnaire for pretest task "Natasha". The examples of the questions are: *"What feelings does Natasha experience?"*, *"Wherein does a conflict of this situation lie?"*, *"How can Natasha reason in this situation?"*, *"What would happen if Natasha says the truth?"* etc. The contents of the questionnaire for moral dilemma "Natasha" could be found in Appendix 7.

20 questions (including 4 sub-questions) in questionnaires for moral tasks "Misha", "Andrey" and 18 questions (including 4 sub-questions) in the questionnaire for task "Nikita" were presented to the students in the Main study. The examples of the questions are: *"What feelings do Misha (for example in the task "Misha") experience?"*, *"What do you think of heroes (i.e. participants of the situation)?"* (all three sub-questions - 6a, 6b, 6c), *"Wherein does a conflict of this situation lie?"*, *"How this situation is seen from a parents' view?"*, *"Do you think Misha's position to be right? Why?"*, *"How can Misha reason in this situation?"*, *"Whose aims do you find most worthy in this situation?"*, *"What do you think about friendship between Misha and Snake?"* etc. The whole list of questionnaire items for moral dilemmas "Misha", "Nikita" and "Andrey" could be found in Appendix 9, Appendix 11 and Appendix 13.

Like in the Main study 1 (see 4.3.3.2 for details), in the Main study 2, the special "*Empathy Index*" was calculated for each of the moral tasks.

Those questionnaires were similar both for the participants to whom the written task has been presented and for those who watched the experimental video.

4.4.3.3 Study Design

After the pretest task, when every student group has been solving the task "Natasha", the whole sample was divided into almost six equal quantity groups of junior (6th and 7th Grade) and senior (9th and 10th Grade) students. The Control groups solved moral tasks using written narratives both in the pretest (written problem task "Natasha") and in the main part (written problem tasks "Misha", "Nikita" and "Andrey") of the study, while the Experimental group classes solved the pretest task using a written narrative (written problem tasks "Natasha" similar to the one solved by the Control group students) and watched the experimental movie "Misha", "Nikita" and "Andrey" in the main part.

So the experimental design looks similar to the way it's presented in the Table 4.20.

The pretest and the main part of the study were performed with an interval of three days.

Table 4.20. Design of Main Study 2

Group	Task	Moral task " <u>Natasha</u> " (Pretest)	Moral task " <u>Misha</u> " (Main part)	Moral task " <u>Nikita</u> " (Main part)	Moral task " <u>Andrey</u> " (Main part)
Grades 6-7 Control		Class 1 ⁸ – Text " <u>Natasha</u> "; Class 2 – Text " <u>Natasha</u> "; Class 3 – Text " <u>Natasha</u> "	Class 1 – Text " <u>Misha</u> "	Class 2 – Text " <u>Nikita</u> "	Class 3 – Text " <u>Andrey</u> "
Grades 6-7 Experimental		Class 4 – Text " <u>Natasha</u> "; Class 5 – Text " <u>Natasha</u> "; Class 6 – Text " <u>Natasha</u> "	Class 4 – Video " <u>Misha</u> "	Class 5 – Video " <u>Nikita</u> "	Class 6 – Video " <u>Andrey</u> "
Grades 9-10 Control		Class 7 – Text " <u>Natasha</u> "; Class 8 – Text " <u>Natasha</u> "; Class 9 – Text " <u>Natasha</u> "	Class 7 – Text " <u>Misha</u> "	Class 8 – Text " <u>Nikita</u> "	Class 9 – Text " <u>Andrey</u> "
Grades 9-10 Experimental		Class 10 – Text " <u>Natasha</u> "; Class 11 – Text " <u>Natasha</u> "; Class 12 – Text " <u>Natasha</u> "	Class 10 – Video " <u>Misha</u> "	Class 11 – Video " <u>Nikita</u> "	Class 12 – Video " <u>Andrey</u> "

⁸ The real names of the classes are different from the ones took part in Main study 2

4.4.3.3.a Data collection design

As in the previous studies, data collection procedure was absolutely the same for all groups (Control and Experimental, junior and senior students) and all tasks ("Natasha", "Misha", "Nikita" and "Andrey"), that provided equality and clearness of experimental procedure for all of its steps. Likewise in previous studies, there was a short introduction (which played the motivating role and prepared the students for the test) for all groups before presenting the stimulus material (video - for Experimental, and text - for Control group). The following introduction was given: *"Dear friends, one day or the other every young boy or a girl have to face difficult situations of life. Even more so happens in the life of an adult like you. In such difficult situations one has to make a decision by choosing one path and sacrificing the other... Now you will get acquainted with a story of ... (name of task), who got in trouble. Once that is over, we will ask you to answer some questions concerning this story. Nobody, besides us would see your answers, it's not an exam, and there will be no grades for this work, as there are no bad or good answers, there are only YOUR answers, which are of a great importance for us. We will be very grateful for your help. If you need some help, or if you don't understand something don't hesitate to ask us. Now let's start!"*

Stimulus material was presented for 3 minutes to the groups, which had to read the textual moral task, and 2-4 minutes for watching the video, depending on each ones length. Then, the written tasks were taken away, or in case with video -once it was turned off.

After a short emotional arousal, which happens usually after presenting a moral task each student would receive a personal questionnaire. The students were asked to: *"Complete the questionnaire personally, and not copy the answer of the neighbour as there are no right or wrong answers. Please, answer the questions in a way "like you think" and explain your opinion precisely, taking into account all the peculiarities of the situation. If you have some questions concerning the question in text, don't hesitate to ask. Let's start!"* In the case of the students' question the researcher answered the questions in a general form, not giving them real help in answering the questions and filling the questionnaires.

4.4.3.3b Input and data processing

Subjects' responses were evaluated on the basis of the specially elaborated assessment criteria; accordingly every answer has got one or another quantitative meaning. As mentioned earlier, every question of the questionnaire was transferred from the form of qualitative explanation to the quantitative grade. Several PhDs, University psychology teachers and psychology students have been reading the answers (explanations) of respondents, trying to

realize, which answer might be marked as "one" and so forth. This process took place within Pilot study, and partially in the Main study, until the right criteria of measurement was completely elaborated. One can easily find the examples of the ranks given in the Appendix 1.

Moral task "Natasha". Questionnaire items. Expert appraisal and ranks

As mentioned earlier, 21 questions: 19 open-ended questions and 2 multiple-choice questions were presented to the students in the pretest task "Natasha". Due to the expert appraisal and qualitative evaluation, answers to the questions "*How would you behave if you were in Natasha's shoes?*", "*How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make?*", "*Whom do you sympathize in this situation? Why?*", "*What feelings does Natasha experience?*", "*What do you think about the participants of this situation? – Natasha*", "*What do you think about the participants of this situation? - Julia*", "*What do you think about the participants of this situation? - Teacher*", "*What do you think about the participants of this situation? - Parents*", "*Wherein does a conflict of this situation lie?*", "*How is the situation viewed by Julia?*", "*Do you respect the parents' attitude? Why?*", "*How can Natasha argue in this situation, making a decision on how to act?*", "*What will the teacher feel if Natasha lies?*", "*What will Julia feel if her friend says the truth and she finishes the year with worse marks?*", "*What shall the parents of Julia feel getting to know about her grade for the assignment?*", "*Whether Natasha has to say the truth in this situation (to say the real Julia's mark), while being the best friend of Julia?*", "*What would happen if Natasha says truth?*", "*What would happen if Natasha lies?*" were scaled as **1- Explanation DOESN'T uncover the right answer** (wrong or non-adequate answer), **2- Explanation PARTLY UNCOVERS the right answer** (right adequate answer, which doesn't include all the peculiarities of the situation or include them only partly), and **3- Explanation FULLY UNCOVERS the right answer** (right adequate answer including all the peculiarities of the situation). Question "*Whom do you sympathize in this situation?*" was scaled as **1 – "Natasha"**, **2 – "Julia"**, **3 – "Teacher"**, **4 – "Parents"**, **5 – "No one"**. Two other questions: "*Have you experienced the same feelings of Natasha once you got to know her difficult situation?*" and "*Do you respect the parents' attitude?*" have 4-grade scale of answers: **1 – "No"**, **2- Rather NO, than yes**, **3 – Rather YES, than no**, **4- "Yes"**.

Likewise in Main study 1, the special "*Empathy Index*" was used. Such index was determined for pretest and main part of the study separately, as an integrative sum of answers on the following questions of the questionnaire on moral task Natasha: "*What feelings does Natasha experience?*", "*Wherein does a conflict of this situation lie?*", "*How can Natasha argue in this situation, making a decision on how to act?*", "*What will the teacher feel if Natasha lies?*", "*What will Julia feel if her friend says the*

truth and she finishes the year with worse marks?", "What shall the parents of Julia feel getting to know about her grade for the assignment?"

Moral task "Misha". Questionnaire items. Expert appraisal and ranks

In the questionnaire for task "Misha", 20 questions were presented: two of them are multiple-choice and others are open-ended questions. Two questions: *"Have you experienced the same feelings of Misha once you got to know his difficult situation?"* and *"Do you respect the parents' attitude?"* have 4-graded scale of answers: 1- "No", 2- "Rather NO, than yes", 3 - "Rather YES, than no", 4- "Yes". The question *"Whose aims do you find most worthy in this situation?"* and *"Whom do you sympathize in this situation?"* was scaled by 1 - "Misha", 2 - "Snake", 3 - "Parents", 4 - "Misha and his parents", 5 - "No one". Other questions: *"How would you behave if you were in Misha's shoes?"*, *"How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?"*, *"Whom do you sympathize in this situation? Why?"*, *"What feelings does Misha experience?"*, *"What do you think about the participants of this situation? - Misha"*, *"What do you think about the participants of this situation? - Parents"*, *"What do you think about the participants of this situation? - Snake"*, *"Wherein does a conflict of this situation lie?"*, *"How is the situation viewed by Parents?"*, *"Do you respect the parents' attitude? Why?"*, *"How can Misha argue in this situation, making a decision on how to act?"*, *"What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?"*, *"What will Misha feel if he returns the change but his parents refuse his request for money?"*, *"What do you think about friendship between Misha and Snake?"*, *"What would happen if Misha gives the change back to the parents?"*, *"What would happen if Misha buys a gift for his friend with the change?"* were scaled as 1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer), 2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of the situation or includes them only partly), and 3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

"Empathy Index" was counted as a sum of questions: *"What feelings does Misha experience?"*, *"Wherein does a conflict of this situation lie?"*, *"How can Misha argue in this situation, making a decision on how to act?"*, *"What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?"*, *"What will Misha feel if he returns the change but his parents refuse his request for money?"*.

Moral Task "Nikita". Questionnaire items. Expert appraisal and ranks.

The task "Nikita" questionnaire included 18 questions: 1 multiple-choice and 17 open-ended question. Multiple-choice question *"Have you experienced the same feelings of Nikita once you got to*

know his difficult situation?" have 4-graded scale of answers: 1- "No", 2- "Rather NO, than yes", 3- "Rather YES, than no", 4- "Yes". Questions "*Whom do you sympathize in this situation?"* and "*Whose aims do you find most worthy in this situation?"* had been scaled by 4 grades: 1- "Nikita", 2- "Old Lady", 3- "Serious Man", 4- "No one". Other 16 questions, namely "*How would you behave if you were in Nikita's shoes?"*", "*How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make?"*", "*Whom do you sympathize in this situation? Why?"*", "*What feelings does Nikita experience?"*", "*What do you think about the participants of this situation? - Nikita*", "*What do you think about the participants of this situation? - Old lady*", "*What do you think about the participants of this situation? - Serious man*", "*Wherein does a conflict of this situation lie?"*", "*How is the situation viewed by the Old Lady?"*", "*What will Nikita feel if he gives back the money to the owner or to the poor old lady?"*", "*What Nikita has to do with Old Lady and the Serious man in this situation?"*", "*What would happen if Nikita gives the money back to the owner?"*", "*What would happen if Nikita gives the money to the Old lady?"*", "*What would happen if Nikita keeps the money?"*" were scaled as 1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer), 2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of the situation or includes them only partly), and 3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

The "*Empathy Index*" was specially counted for the task "Nikita" too. Answers on the following questions were calculated: "*What feelings does Nikita experience?"*", "*Wherein does a conflict of this situation lie?"*", "*How can Nikita argue in this situation, making a decision on how to act?"*", "*What will Nikita feel if he gives back the money to the owner or to the poor old lady?"*"

Moral task "Andrey". Questionnaire items. Expert appraisal and ranks

Finally in the task "Andrey" questionnaire 20 questions were presented. 2 questions were multiple-choice ones and sounded like "*Have you experienced the same feelings of Andrey once you got to know his difficult situation?"* and "*Do you respect the Andrey's friends' attitude?"* have 4-graded scale of answers: 1- "No", 2- "Rather NO, than yes", 3- "Rather YES, than no", 4- "Yes". Several questions of rest 18 open-ended questions "*Whom do you sympathize in this situation?"* and "*Whose aims do you find most worthy in this situation?"* had a scale of 4 grades: 1- "Andrey", 2 - "Andrey's parents", 3- "Andrey's friends", 4- "A man with a cell phone", 5- "No one". Other questions, namely "*How would you behave if you were in Andrey's shoes?"*", "*How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make?"*", "*Whom do you sympathize in this*

situation? Why?", "What feelings does Andrey experience?", "What do you think about the participants of this situation? - Andrey", "What do you think about the participants of this situation? - Parents", "What do you think about the participants of this situation? - Friends", "Wherein does a conflict of this situation lie?", "How's the situation viewed by Andrey's Friends?", "Do you respect the Andrey's friends' attitude? Why?", "How can Andrey argue in this situation, making a decision on how to act?", "What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone?", "What will Andrey feel if he steals the cellular phone?", "What do you think about relations between Andrey and his friends?", "What would happen if Andrey steals the cellular phone from the table?" and "What would happen if Andrey does not give back the cellular phone before his father returns back home?" were scaled as 1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer), 2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of the situation or includes them only partly), and 3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

As well as for previously described moral tasks, "*Empathy Index*" for the task "Andrey" were defined by following questionnaire items: "*What feelings does Andrey experience?*", "*Wherein does a conflict of this situation lie?*", "*How can Andrey argue in this situation, making a decision on how to act?*", "*What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone?*", "*What will Andrey feel if he steals the cellular phone?*"

The whole list of questions could be found in Appendix 7, Appendix 9, Appendix 11 and Appendix 13.

4.4.3.3c *Statistical processing of achieved results*

Likewise with Main study 1, collected data was filtered for inadequate answers (absence of more than 50% of answers in questionnaire, or absolutely non-adequate answers on all questions) – around 10%, which were removed from the sample. After that filtering rest of the data was pasted in SPSS version 13, in which all further statistical processing was holding.

According to the posted goals, during the data processing several statistical tests were chosen:

- 1) Test Reliability using Cronbach Alpha. This test was performed to show how well a set of variables measures a single unidimensional latent construct.
- 2) Descriptive Statistics. The test was used to reflect the frequencies of answers, especially to compare several groups on answering one or another question.

- 3) Non-parametric statistics using Mann-Whitney Test. This test was used to compare two unpaired groups like Control and Experimental, junior and senior students, male and female students, taking into account that the groups were not equal by sample-size, and absence of some items (like answers on some questions).

4.4.4 Results

Results achieved in pretest and main part of Main study 2 are presented below.

4.4.4.1 Reliability Statistics Test

Initially all the tasks of the study: pretest task "Natasha" and tasks "Misha", "Nikita" and "Andrey" were provided with *Reliability Statistics test* (see Table 4.21, Table 4.22, Table 4.23 and Table 4.24). Before providing reliability test results on several questions from the questionnaire were temporarily hidden from the data table: for the task "Natasha": "*Whom do you sympathize in this situation?*", "*Have you experienced the same feelings of Natasha once you got to know her difficult situation?*" and "*Do you respect the parents' attitude?*"; for the task "Misha": "*Whom do you sympathize in this situation?*", "*Have you experienced the same feelings of Misha once you got to know his difficult situation?*", "*Do you respect the parents' attitude?*", "*Whose aims do you find most worthy in this situation?*"; for task "Nikita": "*Whom do you sympathize in this situation?*", "*Have you experienced the same feelings of Nikita once you got to know his difficult situation?*", "*Whose aims do you find most worthy in this situation?*"; and for the task "Andrey": "*Whom do you sympathize in this situation?*", "*Have you experienced the same feelings of Andrey once you got to know his difficult situation?*", "*Do you respect Andrey's friends attitude?*", "*Whose aims do you find most worthy in this situation?*" due to the fact that these questions aimed on several aspects (like defining the most sympathetic person in moral dilemma, or relation to one or another participant of moral dilemma) different from the main construct (moral competence) measurement. Thus the Reliability test showed rather high Cronbach alpha value for all presented in the study tasks: **,795** – for the moral task "Natasha" questionnaire, **,821** – for the moral task "Misha" questionnaire, **,825** – for the moral task "Nikita" questionnaire, **,804** – for the moral task "Andrey" questionnaire, (for details see Table 4.21, Table 4.22, Table 4.23 and Table 4.24)

Table 4.21 Reliability test, moral task "Natasha"

		N	%
Cases	Valid	333	89,8
	Excluded(a)	38	10,2
	Total	371	100,0

Cronbach's Alpha	N of Items
,795	19

Table 4.22 Reliability test, moral task "Misha"

		N	%
Cases	Valid	94	27,1
	Excluded(a)	243	72,9
	Total	333	100,0

Cronbach's Alpha	N of Items
,821	16

Table 4.23 Reliability test, moral task "Nikita"

		N	%
Cases	Valid	92	26,4
	Excluded(a)	245	73,6
	Total	333	100,0

Cronbach's Alpha	N of Items
,825	15

Table 4.24 Reliability test, moral task "Andrey"

		N	%
Cases	Valid	94	27,1
	Excluded(a)	243	72,9
	Total	333	100,0

Cronbach's Alpha	N of Items
,804	16

4.4.4.2 Results of Pretest.

4.4.4.2a Statistical analysis of differences between Control and Experimental groups (moral task "Natasha")

To estimate differences/similarities between Control and Experimental groups, six pairs of groups were compared: three pairs of young and three pairs of older adolescents groups. The following pairs of younger students were compared: *Pair 1: Class 2 – Class 5*, *Pair 2: Class 1 – Class 4*, *Pair 3: Class 3 – Class 6* (for details see. Table 4.20). Pairs of senior students were compared in following pairs: *Pair 4: Class 7 – Class 10*, *Pair 5: Class 8 – Class 11*, *Pair 6: Class 9 –*

Class 12. Comparison between pairs of classes would hold only the following the order listed above.

The main result of the pretest was that practically no significant differences between Control and Experimental groups in solving the tasks "Natasha" have been found (see Table 4.25, Table 4.26, Table 4.27, Table 4.28, Table 4.29, and Table 4.30).

Table 4.25. Statistical analysis of registered differences between Control and Experimental groups of junior students (moral task "Natasha") - first pair of groups

Group - Control/Experimental	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Natasha's shoes?	99,500	219,500	-1,409	,159
How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make?	63,500	183,500	-2,885	,004
Whom do you sympathize in this situation? Why?	110,000	230,000	-,708	,479
What feelings does Natasha experience?	124,500	244,500	-,135	,892
Have you experienced the same feelings of Natasha once you got to know her difficult situation?	126,000	279,000	-,061	,952
What do you think about the participants of this situation? - Natasha	120,000	273,000	-,392	,695
What do you think about the participants of this situation? - Julia	108,000	261,000	-,877	,381
What do you think about the participants of this situation? - Teacher	100,500	220,500	-1,169	,242
What do you think about the participants of this situation? - Parents	125,500	278,500	-,100	,920
Wherein does a conflict of this situation lie?	124,500	244,500	-,131	,896
How is the situation viewed by Julia?	95,000	248,000	-1,556	,120
Do you respect the parents' attitude? Why?	121,000	274,000	-,270	,787
How can Natasha argue in this situation, making a decision on how to act?	119,500	239,500	-,357	,721
What will the teacher feel if Natasha lies?	120,000	273,000	-,359	,720
What will Julia feel if her friend says the truth and she finishes the year with worse marks?	127,000	280,000	-,022	,983
What shall the parents of Julia feel getting to know about her grade for the assignment?	106,500	259,500	-1,099	,272
Whether Natasha has to say the truth in this situation (to say the real Julia's mark), while being the best friend of Julia?	120,000	240,000	-,560	,575
What would happen if Natasha says truth?	121,500	274,500	-,314	,753
What would happen if Natasha lies?	112,500	265,500	-,748	,455
Empathy Index	122,500	275,500	-,193	,847

Significant differences between Control and Experimental groups were indicated by several questionnaire items. Question *"How would the other participants treat Natasha's behavior if she*

makes the same decision like you wish to make?"- appeared to be significant ($p=,004$) in one pair of junior students (see Table 4.25).

Table 4.26. Statistical analysis of registered differences between Control and Experimental groups of junior students (moral task "Natasha") - second pair of groups

Group - Control/Experimental	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Natasha's shoes?	79,000	289,000	-1,784	,074
How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make?	102,500	312,500	-,843	,399
Whom do you sympathize in this situation? Why?	93,000	171,000	-1,458	,145
What feelings does Natasha experience?	109,500	319,500	-,448	,654
Have you experienced the same feelings of Natasha once you got to know her difficult situation?	113,500	323,500	-,266	,791
What do you think about the participants of this situation? – Natasha	119,000	197,000	-,043	,966
What do you think about the participants of this situation? - Julia	85,000	163,000	-1,471	,141
What do you think about the participants of this situation? – Teacher	116,000	326,000	-,181	,856
What do you think about the participants of this situation? - Parents	116,500	194,500	-,152	,880
Wherein does a conflict of this situation lie?	88,000	298,000	-1,330	,184
How is the situation viewed by Julia?	91,500	169,500	-1,255	,209
Do you respect the parents' attitude? Why?	88,500	298,500	-1,374	,170
How can Natasha argue in this situation, making a decision on how to act?	100,000	310,000	-,834	,404
What will the teacher feel if Natasha lies?	104,000	314,000	-,723	,470
What will Julia feel if her friend says the truth and she finishes the year with worse marks?	111,500	189,500	-,419	,675
What shall the parents of Julia feel getting to know about her grade for the assignment?	118,500	328,500	-,072	,942
Whether Natasha has to say the truth in this situation (to say the real Julia's mark), while being the best friend of Julia?	120,000	198,000	,000	1,000
What would happen if Natasha says truth?	118,000	328,000	-,095	,925
What would happen if Natasha lies?	113,500	191,500	-,303	,762
Empathy Index	84,500	294,500	-1,405	,160

Table 4.27. Statistical analysis of registered differences between Control and Experimental groups of junior students (moral task "Natasha") - third pair of groups

Group - Control/Experimental	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Natasha's shoes?	136,500	307,500	-1,171	,242
How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make?	120,000	291,000	-1,440	,150
Whom do you sympathize in this situation? Why?	127,000	298,000	-1,197	,231
What feelings does Natasha experience?	127,000	298,000	-1,284	,199
Have you experienced the same feelings of Natasha once you got to know her difficult situation?	117,500	288,500	-1,456	,145
What do you think about the participants of this situation? – Natasha	154,000	325,000	-,367	,714
What do you think about the participants of this situation? - Julia	124,000	295,000	-1,426	,154
What do you think about the participants of this situation? – Teacher	138,500	309,500	-,919	,358
What do you think about the participants of this situation? - Parents	137,500	308,500	-1,124	,261
Wherein does a conflict of this situation lie?	139,500	310,500	-,805	,421
How is the situation viewed by Julia?	139,500	310,500	-,835	,403
Do you respect the parents' attitude? Why?	125,500	296,500	-1,355	,175
How can Natasha argue in this situation, making a decision on how to act?	148,000	319,000	-,509	,611
What will the teacher feel if Natasha lies?	153,500	324,500	-,390	,697
What will Julia feel if her friend says the truth and she finishes the year with worse marks?	136,500	307,500	-1,065	,287
What shall the parents of Julia feel getting to know about her grade for the assignment?	140,000	311,000	-,863	,388
Whether Natasha has to say the truth in this situation (to say the real Julia's mark), while being the best friend of Julia?	153,500	324,500	-,561	,575
What would happen if Natasha says truth?	142,500	313,500	-,791	,429
What would happen if Natasha lies?	148,000	319,000	-,496	,620
Empathy Index	126,000	297,000	-1,159	,247

No significant differences were found among another two pairs of junior students' groups (Table 4.26 and Table 4.27).

Table 4.28. Statistical analysis of registered differences between Control and Experimental groups of junior students (moral task "Natasha") - forth pair of groups

Group - Control/Experimental	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Natasha's shoes?	104,000	294,000	-1,586	,113
How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make?	116,000	306,000	-1,149	,251
Whom do you sympathize in this situation? Why?	139,500	329,500	-,115	,908
What feelings does Natasha experience?	136,500	326,500	-,238	,812
Have you experienced the same feelings of Natasha once you got to know her difficult situation?	133,500	323,500	-,330	,741
What do you think about the participants of this situation? - Natasha	129,500	319,500	-,496	,620
What do you think about the participants of this situation? - Julia	120,000	310,000	-,891	,373
What do you think about the participants of this situation? – Teacher	88,500	278,500	-2,132	,033
What do you think about the participants of this situation? - Parents	135,000	255,000	-,284	,777
Wherein does a conflict of this situation lie?	106,500	296,500	-1,558	,119
How is the situation viewed by Julia?	109,500	229,500	-1,387	,165
Do you respect the parents' attitude? Why?	128,500	318,500	-,525	,600
How can Natasha argue in this situation, making a decision on how to act?	140,500	330,500	-,080	,936
What will the teacher feel if Natasha lies?	130,500	250,500	-,562	,574
What will Julia feel if her friend says the truth and she finishes the year with worse marks?	122,500	312,500	-,827	,408
What shall the parents of Julia feel getting to know about her grade for the assignment?	133,000	323,000	-,468	,640
Whether Natasha has to say the truth in this situation (to say the real Julia's mark), while being the best friend of Julia?	110,000	300,000	-1,521	,128
What would happen if Natasha says truth?	124,500	314,500	-,941	,347
What would happen if Natasha lies?	111,000	301,000	-1,208	,227
Empathy Index	116,500	306,500	-,915	,360

The questionnaire item *"What do you think about the participants of this situation? Teacher"* appeared significant ($p=,033$) for one pair of older adolescents groups (see Table 4.28).

Another significant difference was found among another two groups of older adolescents (see Table 4.29) on questions *"What do you think about the participants of this situation? Parents"* ($p=,037$) and *"Do you respect the parents' attitude? Why?"* ($p=,029$).

Table 4.29. Statistical analysis of registered differences between Control and Experimental groups of junior students (moral task "Natasha") - fifth pair of groups

Group - Control/Experimental	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Natasha's shoes?	197,500	428,500	-,064	,949
How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make?	188,500	419,500	-,336	,737
Whom do you sympathize in this situation? Why?	197,000	387,000	-,075	,940
What feelings does Natasha experience?	198,500	429,500	-,072	,943
Have you experienced the same feelings of Natasha once you got to know her difficult situation?	133,500	364,500	-1,883	,060
What do you think about the participants of this situation? – Natasha	176,500	366,500	-,703	,482
What do you think about the participants of this situation? - Julia	152,000	342,000	-1,478	,139
What do you think about the participants of this situation? – Teacher	189,500	379,500	-,299	,765
What do you think about the participants of this situation? - Parents	139,000	329,000	-2,091	,037
Wherein does a conflict of this situation lie?	183,500	414,500	-,461	,645
How is the situation viewed by Julia?	174,000	405,000	-,882	,378
Do you respect the parents' attitude? Why?	133,000	323,000	-2,189	,029
How can Natasha argue in this situation, making a decision on how to act?	154,500	385,500	-1,345	,179
What will the teacher feel if Natasha lies?	163,500	394,500	-1,571	,116
What will Julia feel if her friend says the truth and she finishes the year with worse marks?	142,500	373,500	-1,927	,054
What shall the parents of Julia feel getting to know about her grade for the assignment?	166,500	397,500	-1,187	,235
Whether Natasha has to say the truth in this situation (to say the real Julia's mark), while being the best friend of Julia?	199,000	389,000	-,026	,979
What would happen if Natasha says truth?	145,000	376,000	-1,950	,051
What would happen if Natasha lies?	154,500	385,500	-1,477	,140
Empathy Index	126,500	357,500	-2,005	,045

In the last pair of senior students (Table 4.30) only one questionnaire item indicated significant differences – question *"How is the situation viewed by Julia?"* ($p=,009$).

As it's observed found from the above results (see Table 4.25, Table 4.26, Table 4.27, Table 4.28, Table 4.29, and Table 4.30), practically no significant differences were found between Control and Experimental group students in the context of *"Empathy Index"*. Significant difference was found only in one case (see Table 4.29): comparing Control and Experimental groups of senior teenagers ($p=,045$).

Table 4.30. Statistical analysis of registered differences between Control and Experimental groups of junior students (moral task "Natasha") - sixth pair of groups

Group - Control/Experimental	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Natasha's shoes?	171,500	361,500	-,296	,767
How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make?	155,000	345,000	-,935	,350
Whom do you sympathize in this situation? Why?	143,000	333,000	-1,196	,232
What feelings does Natasha experience?	178,500	368,500	-,076	,939
Have you experienced the same feelings of Natasha once you got to know her difficult situation?	158,500	348,500	-,681	,496
What do you think about the participants of this situation? – Natasha	173,500	363,500	-,245	,807
What do you think about the participants of this situation? - Julia	156,500	346,500	-,805	,421
What do you think about the participants of this situation? – Teacher	171,500	361,500	-,316	,752
What do you think about the participants of this situation? - Parents	151,500	341,500	-,930	,352
Wherein does a conflict of this situation lie?	160,500	350,500	-,758	,449
How is the situation viewed by Julia?	120,000	310,000	-2,616	,009
Do you respect the parents' attitude? Why?	166,000	356,000	-,466	,641
How can Natasha argue in this situation, making a decision on how to act?	135,000	325,000	-1,487	,137
What will the teacher feel if Natasha lies?	154,500	344,500	-1,124	,261
What will Julia feel if her friend says the truth and she finishes the year with worse marks?	171,500	361,500	-,354	,723
What shall the parents of Julia feel getting to know about her grade for the assignment?	139,000	329,000	-1,630	,103
Whether Natasha has to say the truth in this situation (to say the real Julia's mark), while being the best friend of Julia?	142,000	332,000	-1,586	,113
What would happen if Natasha says truth?	171,500	361,500	-,390	,697
What would happen if Natasha lies?	140,500	330,500	-1,469	,142
Empathy Index	134,000	324,000	-1,378	,168

4.4.4.2b Statistical analysis of gender differences (moral task "Natasha")

Results of junior and senior groups were than compared for gender differences while solving pretest task "Natasha", namely among male and female students taking a part in this study. As it would be shown below, mostly no significant difference has been found between male and female subjects.

Girls from the younger group (Table 4.31) showed significant differences on one item from the questionnaire *"Do you respect the parents' attitude? Why?"* ($p=,034$) and, as one might expect, demonstrated sufficiently higher level of empathy than the boys ($p=,022$).

Table 4.31. Statistical analysis of registered differences between junior male and female students (moral task "Natasha")

Sex - Male/Female Students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Natasha's shoes?	1088,500	2414,500	-1,396	,163
How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make?	1129,000	2455,000	-,919	,358
Whom do you sympathize in this situation? Why?	1060,000	2386,000	-1,424	,154
What feelings does Natasha experience?	1006,500	2332,500	-1,914	,056
Have you experienced the same feelings of Natasha once you got to know her difficult situation?	1189,000	2515,000	-,434	,664
What do you think about the participants of this situation? – Natasha	1058,000	2384,000	-1,656	,098
What do you think about the participants of this situation? - Julia	1231,500	2456,500	-,141	,888
What do you think about the participants of this situation? – Teacher	1007,500	2333,500	-1,861	,063
What do you think about the participants of this situation? - Parents	1164,500	2490,500	-,727	,467
Wherein does a conflict of this situation lie?	1188,500	2514,500	-,460	,646
How is the situation viewed by Julia?	1178,000	2504,000	-,581	,561
Do you respect the parents' attitude? Why?	968,000	2294,000	-2,120	,034
How can Natasha argue in this situation, making a decision on how to act?	1166,000	2492,000	-,639	,523
What will the teacher feel if Natasha lies?	1029,500	2355,500	-1,925	,054
What will Julia feel if her friend says the truth and she finishes the year with worse marks?	1122,500	2448,500	-1,086	,277
What shall the parents of Julia feel getting to know about her grade for the assignment?	1132,500	2458,500	-1,028	,304
Whether Natasha has to say the truth in this situation (to say the real Julia's mark), while being the best friend of Julia?	1201,000	2527,000	-,813	,416
What would happen if Natasha says truth?	1180,000	2506,000	-,613	,540
What would happen if Natasha lies?	1117,500	2443,500	-1,079	,281
Empathy Index	922,000	2248,000	-2,290	,022

Ladies from 9th-10th Grades showed significant differences on the following questionnaire items (Table 4.32): *"Whom do you sympathize in this situation? Why?"* ($p=,003$) *"What feelings does Natasha experience?"* ($p=,029$) and *"What do you think about the participants of this situation? – Natasha"*

($p=,010$). All these questions reflect students' relation to the character and the sympathy to him/her. That's quite clear, taking into account that the presented moral task "Natasha" (dilemma encloses two main female characters) could be emotionally significant to the senior female students.

Table 4.32. Statistical analysis of registered differences between senior male and female students (moral task "Natasha")

Sex - Male/Female Students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Natasha's shoes?	2292,500	3832,500	-1,414	,157
How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make?	2563,000	4103,000	-,225	,822
Whom do you sympathize in this situation? Why?	1918,000	3458,000	-2,961	,003
What feelings does Natasha experience?	2191,000	3731,000	-2,190	,029
Have you experienced the same feelings of Natasha once you got to know her difficult situation?	2210,500	3750,500	-1,639	,101
What do you think about the participants of this situation? – Natasha	2024,500	3564,500	-2,565	,010
What do you think about the participants of this situation? - Julia	2450,500	3990,500	-,716	,474
What do you think about the participants of this situation? – Teacher	2321,500	3861,500	-1,277	,202
What do you think about the participants of this situation? - Parents	2168,500	3708,500	-1,940	,052
Wherein does a conflict of this situation lie?	2442,500	3982,500	-,735	,462
How is the situation viewed by Julia?	2351,000	3891,000	-1,294	,196
Do you respect the parents' attitude? Why?	2318,500	3858,500	-1,274	,203
How can Natasha argue in this situation, making a decision on how to act?	2527,000	4067,000	-,363	,717
What will the teacher feel if Natasha lies?	2365,000	3905,000	-1,293	,196
What will Julia feel if her friend says the truth and she finishes the year with worse marks?	2325,500	3865,500	-1,386	,166
What shall the parents of Julia feel getting to know about her grade for the assignment?	2412,500	6972,500	-1,025	,305
Whether Natasha has to say the truth in this situation (to say the real Julia's mark), while being the best friend of Julia?	2481,000	4021,000	-,736	,462
What would happen if Natasha says truth?	2439,000	6999,000	-,890	,374
What would happen if Natasha lies?	2428,000	3968,000	-,839	,401
Empathy Index	2280,500	3820,500	-1,308	,191

4.4.4.2c Statistical analysis of age differences (moral task "Natasha")

While comparing answers of junior (6th -7th Grade) and senior (9th -10th Grade) students the significant differences were found (see Table 4.33).

Table 4.33. Statistical analysis of registered differences between junior and senior students (moral task "Natasha")

Age relation -Junior/Senior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Natasha's shoes?	3860,000	8910,000	-4,836	,000
How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make?	4915,500	9965,500	-2,178	,029
Whom do you sympathize in this situation? Why?	5635,000	10685,000	-,392	,695
What feelings does Natasha experience?	5299,500	12085,500	-1,353	,176
Have you experienced the same feelings of Natasha once you got to know her difficult situation?	5398,500	10448,500	-,918	,358
What do you think about the participants of this situation? – Natasha	5290,500	12076,500	-1,315	,189
What do you think about the participants of this situation? - Julia	5039,000	11825,000	-1,895	,058
What do you think about the participants of this situation? – Teacher	5152,000	11938,000	-1,577	,115
What do you think about the participants of this situation? - Parents	5793,000	10843,000	-,018	,986
Wherein does a conflict of this situation lie?	4236,500	9286,500	-3,688	,000
How is the situation viewed by Julia?	5175,000	10225,000	-1,684	,092
Do you respect the parents' attitude? Why?	4811,500	9861,500	-2,371	,018
How can Natasha argue in this situation, making a decision on how to act?	5006,000	10056,000	-1,902	,057
What will the teacher feel if Natasha lies?	5634,000	12420,000	-,488	,625
What will Julia feel if her friend says the truth and she finishes the year with worse marks?	4681,000	9731,000	-3,048	,002
What shall the parents of Julia feel getting to know about her grade for the assignment?	5156,000	10206,000	-1,834	,067
Whether Natasha has to say the truth in this situation (to say the real Julia's mark), while being the best friend of Julia?	5654,500	12440,500	-,537	,592
What would happen if Natasha says truth?	4151,000	9201,000	-4,753	,000
What would happen if Natasha lies?	4375,500	9425,500	-3,635	,000
Empathy Index	4536,000	9586,000	-2,793	,005

Mostly on all important items of the questionnaire: *"How would you behave if you were in Natasha's shoes?"* (p=**,000**), *"How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make?"* (p=**,029**), *"Wherein does a conflict of this situation lie?"* (p=**,000**), *"Do you respect the parents' attitude? Why?"* (p=**,018**), *"What will Julia feel if her friend says the truth and she finishes the year with worse marks?"* (p=**,002**), *"What would happen if Natasha says truth?"* (p=**,000**), *"What would happen if Natasha lies?"* (p=**,000**), and *"Empathy Index"* (p=**,005**), significant differences were found. That finding confirms the statement concerning the higher cognitive abilities and thoughtfulness of older in comparison to the young adolescents.

As a conclusion it is possible to note that the younger students only differ from their older colleagues, but similar while solving the moral task and there are no hesitations concerning a similarity of the selected groups (Control and Experimental).

4.4.4.3 Results of the Main Part

Results of the main part will be presented in regard to the research question and posed hypothesis (see 3.2. and 3.3.). In this sense it was important to find differences in solving moral dilemmas using traditional textual- and video-presentation of moral dilemmas. Following minor hypothesis it was interesting to find differences between genders and different ages in solving moral dilemmas following the method elaborated in terms of this study (see 3.3.1 and 3.3.2). I start with a presentation of descriptive analysis of achieved results and then continue with nonparametric tests and searching significant differences between Control and Experimental groups for each task in turn. The description of results will be presented in reverse order: firstly the results on *age differences*, secondly on *gender differences* and, finally, comparison of *textual and video forms of presentation materials*, represented by Control and Experimental groups. All these comparisons would be discussed, taking into account each of the solved tasks: moral task "Misha", moral task "Nikita" and moral task "Andrey".

4.4.4.3a Statistical analysis of age differences (moral tasks "Misha", "Nikita" and "Andrey")

Moral task "Misha"

As it is possible to see from the Table 4.34, results of senior (9th -10th Grades) students who were solving task "Misha" scored more on every question, besides 2nd - "*How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?*", 4th - "*Whom do you sympathize in this situation? Why?*", 6th - "*Have you experienced the same feelings of Misha once you got to know his difficult situation?*", 8th - "*What do you think about the participants of this situation? - Parents*" and 12th - "*Do you respect the parents' attitude?*" question. One can find quite high standard deviation (>1) for the questions "*Whom do you sympathize in this situation?*" and "*Whose aims do you find most worthy in this situation?*". The reason for that is scale of 5 Grades, in comparison to the others questions which were scaled only by 3-graded scale.

Table 4.34. Age differences of students' answers- means and standard deviations (moral task "Misha")

Age relation -Junior/Senior students	Juniors (6th -7th Grade)		Seniors (9th-10th Grade)	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Misha's shoes?	2,8621	,74278	3,0385	,82369
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	2,2069	,67503	2,1538	,83390
Whom do you sympathize in this situation?	2,7241	1,83023	3,1923	1,85514
Whom do you sympathize in this situation? Why?	1,7586	,78627	1,6538	,68948
What feelings does Misha experience?	2,0345	,49877	2,0385	,44549
Have you experienced the same feelings of Misha once you got to know his difficult situation?	2,6207	1,17758	2,0769	1,23038
What do you think about the participants of this situation? - Misha	1,8276	,53911	2,1538	,67482
What do you think about the participants of this situation? - Parents	1,9310	,37139	1,8077	,49147
What do you think about the participants of this situation? - Snake	1,7586	,43549	1,8846	,51590
Wherein does a conflict of this situation lie?	2,4138	,82450	2,6538	,62880
How is the situation viewed by Parents?	1,9310	,52989	2,0000	,56569
Do you respect the parents' attitude?	3,2069	,77364	3,0000	,97980
Do you respect the parents' attitude? Why?	1,8621	,63943	2,0385	,72004
How can Misha argue in this situation, making a decision on how to act?	2,1379	,74278	2,6538	,62880
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	2,0000	,46291	2,2308	,58704
What will Misha feel if he returns the change but his parents refuse his request for money?	1,8621	,51576	2,0385	,44549
Whose aims do you find most worthy in this situation?	2,3103	1,41682	3,0000	1,69706
What do you think about friendship between Misha and Snake?	1,9655	,49877	2,0000	,56569
What would happen if Misha gives the change back to the parents?	2,0000	,26726	2,0769	,39223
What would happen if Misha buys a gift for his friend with the change?	2,0690	,37139	2,0769	,48358
Empathy Index	10,4483	1,78458	11,6154	1,89899

In spite of some small differences between junior and senior students found in the descriptives above, statistical analysis of age differences (Table 4.35) registered only two significant results: on the question *"How can Misha argue in this situation, making a decision on how to act?"* ($p=,006$) and on the *"Empathy Index"* ($p=,009$).

Table 4.35. Statistical analysis of registered differences between junior and senior students (moral task "Misha")

Age relation -Junior/Senior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Misha's shoes?	331,500	766,500	-,817	,414
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	370,000	721,000	-,127	,899
Whom do you sympathize in this situation? Why?	354,000	705,000	-,421	,673
What feelings does Misha experience?	376,000	811,000	-,023	,981
Have you experienced the same feelings of Misha once you got to know his difficult situation?	282,000	633,000	-1,666	,096
What do you think about the participants of this situation? - Misha	278,000	713,000	-1,927	,054
What do you think about the participants of this situation? - Parents	332,000	683,000	-1,091	,275
What do you think about the participants of this situation? – Snake	336,500	771,500	-,900	,368
Wherein does a conflict of this situation lie?	325,500	760,500	-1,048	,295
How is the situation viewed by Parents?	355,000	790,000	-,465	,642
Do you respect the parents' attitude? Why?	326,500	761,500	-,944	,345
How can Misha argue in this situation, making a decision on how to act?	229,500	664,500	-2,753	,006
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	299,000	734,000	-1,650	,099
What will Misha feel if he returns the change but his parents refuse his request for money?	317,500	752,500	-1,351	,177
What do you think about friendship between Misha and Snake?	366,000	801,000	-,237	,812
What would happen if Misha gives the change back to the parents?	349,000	784,000	-,873	,383
What would happen if Misha buys a gift for his friend with the change?	373,000	808,000	-,100	,920
Empathy Index	226,000	661,000	-2,604	,009

Moral task "Nikita"

Below in the Table 4.36 a comparison of junior and senior students' answers on questions for moral task "Nikita" is presented.

As well as with the task "Misha" one can find much higher means of senior students' results, on mostly all questions solving task "Nikita". Younger students (like younger students that solved moral task "Misha") showed higher means in answering 6th – "*Have you experienced the same feelings of Nikita once you got to know his difficult situation?*", 7th – "*What do you think about the participants of this situation? – Nikita*", 8th – "*What do you think about the participants of this situation? - Old lady*" and 9th – "*What do you think about the participants of this situation? - Serious man*" questions concerning the participants of the situation and relations to them, and also the 18th question "*What would happen if*

Nikita keeps the money?", which represents the possible ignorant behavior of the main hero, appeared to be more well done by the youngsters.

Table 4.36. Age differences of students' answers- means and standard deviations (moral task "Nikita")

Age relation -Junior/Senior students	Juniors (6th-7th Grade)		Seniors (9th-10th Grade)	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Nikita's shoes?	2,6098	,62762	2,8750	,72280
How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make?	1,7805	,68964	2,1750	,74722
Whom do you sympathize in this situation?	2,6341	1,27977	3,1000	1,54919
Whom do you sympathize in this situation? Why?	1,7561	,83007	1,5250	,75064
What feelings does Nikita experience?	1,8780	,64012	2,3000	,60764
Have you experienced the same feelings of Nikita once you got to know his difficult situation?	2,7805	1,06095	2,1500	1,09895
What do you think about the participants of this situation? – Nikita	1,8293	,73832	1,7750	,65974
What do you think about the participants of this situation? - Old lady	1,9268	,75466	1,7250	,71567
What do you think about the participants of this situation? - Serious man	1,9512	,73997	1,8750	,56330
Wherein does a conflict of this situation lie?	1,9512	,73997	2,0750	,82858
How is the situation viewed by the Old Lady?	1,9024	,76827	2,0750	,65584
How can Nikita argue in this situation, making a decision on how to act?	2,0244	,72415	2,3000	,72324
What will Nikita feel if he gives back the money to the owner or to the poor old lady?	1,8293	,77144	2,2250	,69752
Whose aims do you find most worthy in this situation?	1,8780	1,30758	2,0000	1,43223
What Nikita has to do with Old Lady and the Serious man in this situation?	1,7317	,44857	1,9250	,47434
What would happen if Nikita gives the money back to the owner?	1,8537	,57276	2,0500	,45007
What would happen if Nikita gives the money to the Old lady?	1,8780	,50966	2,0250	,57679
What would happen if Nikita keeps the money?	1,9756	,56955	1,9500	,63851
Empathy Index	5,7317	1,53337	6,8250	1,55064

Four questionnaire items showed statistical differences between young and older adolescents, while solving task "Nikita" (Table 4.37).

Table 4.37. Statistical analysis of registered differences between junior and senior students (moral task "Nikita")

Age relation -Junior/Senior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Nikita's shoes?	641,500	1502,500	-1,859	,063
How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make?	585,000	1446,000	-2,388	,017
Whom do you sympathize in this situation? Why?	695,500	1515,500	-1,310	,190
What feelings does Nikita experience?	547,500	1408,500	-2,888	,004
Have you experienced the same feelings of Nikita once you got to know his difficult situation?	562,000	1382,000	-2,533	,011
What do you think about the participants of this situation? - Nikita	794,000	1614,000	-,268	,789
What do you think about the participants of this situation? - Old lady	700,500	1520,500	-1,217	,224
What do you think about the participants of this situation? - Serious man	778,500	1598,500	-,440	,660
Wherein does a conflict of this situation lie?	748,500	1609,500	-,719	,472
How is the situation viewed by the Old Lady?	713,500	1574,500	-1,093	,274
How can Nikita argue in this situation, making a decision on how to act?	651,000	1512,000	-1,723	,085
What will Nikita feel if he gives back the money to the owner or to the poor old lady?	588,500	1449,500	-2,340	,019
What Nikita has to do with Old Lady and the Serious man in this situation?	678,000	1539,000	-1,787	,074
What would happen if Nikita gives the money back to the owner?	678,000	1539,000	-1,720	,085
What would happen if Nikita gives the money to the Old lady?	718,500	1579,500	-1,194	,232
What would happen if Nikita keeps the money?	801,500	1621,500	-,205	,837
Empathy Index	511,500	1372,500	-2,962	,003

Three questions "How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make?" (p=**,017**), "What feelings does Nikita experience?" (p=**,004**), "What will Nikita feel if he gives back the money to the owner or to the poor old lady?" (p=**,019**) and item "Empathy Index" (p=**,003**) were significant for the group of senior students; question "Have you experienced the same feelings of Nikita once you got to know his difficult situation?" (p=**,003**) appear to be significant for young adolescents

Moral task "Andrey"

The comparison of junior and senior students' answers on questions of problem task "Andrey" questionnaire is presented below in the Table 4.38. In this table, one can find mostly total prevalence of the senior students' answers with higher mean.

Table 4.38. Age differences of students' answers- means and standard deviations (moral task "Andrey")

Age relation -Junior/Senior students	Juniors (6th-7th Grade)		Seniors (9th-10th Grade)	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Andrey's shoes?	2,6571	,72529	2,6250	,65991
How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make?	1,8857	,63113	1,9375	,61892
Whom do you sympathize in this situation?	3,2286	1,76711	3,6563	1,71538
Whom do you sympathize in this situation? Why?	1,4286	,69814	1,5313	,67127
What feelings does Andrey experience?	2,1714	,61767	2,3125	,64446
Have you experienced the same feelings of Andrey once you got to know his difficult situation?	2,4571	1,09391	2,5313	1,13548
What do you think about the participants of this situation? - Andrey	1,6857	,58266	1,9375	,50402
What do you think about the participants of this situation? - Parents	1,6857	,58266	1,6563	,60158
What do you think about the participants of this situation? - Friends	1,5714	,60807	1,9063	,53033
Wherein does a conflict of this situation lie?	2,1429	,55002	2,3438	,65300
How's the situation viewed by Andrey's Friends?	1,8857	,71831	2,0313	,64680
Do you respect the Andrey's friends' attitude?	2,1714	1,15008	2,0000	1,07763
Do you respect the Andrey's friends' attitude? Why?	1,7429	,81684	1,8438	,62782
How can Andrey argue in this situation, making a decision on how to act?	2,1429	,55002	2,3438	,54532
What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone?	2,0571	,53922	2,0938	,46555
What will Andrey feel if he steals the cellular phone?	2,0571	,53922	2,1875	,39656
Whose aims do you find most worthy in this situation?	3,0000	1,59041	3,5938	1,70122
What do you think about relations between Andrey and his friends?	1,6857	,67612	1,9375	,56440
What would happen if Andrey steals the cellular phone from the table?	1,8286	,74698	2,2500	,50800
What would happen if Andrey does not give back the cellular phone before his father returns back home?	1,9143	,61220	2,0938	,53033
Empathy Index	10,5714	2,03334	11,2813	1,63104

Nonparametric test proved the descriptive statistics results (see Table 4.39.). Almost all questions: "How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make?" ($p=,022$), "What do you think about the participants of this situation? - Friends" ($p=,047$), "Wherein does a conflict of this situation lie?" ($p=,023$), "How's the situation viewed by Andrey's Friends?" ($p=,031$), "How can Andrey argue in this situation, making a decision on how to act?" ($p=,047$), "What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone?" ($p=,013$), "What do you think about relations between Andrey and his friends?" ($p=,018$), "What would happen if Andrey steals the cellular phone from the table?" ($p=,030$), "What would happen if Andrey does not give back the cellular

phone before his father returns back home?" ($p=,000$), answered by senior students and *"Empathy Index"* ($p=,005$), appeared statistically significant.

Table 4.39. Statistical analysis of registered differences between junior and senior students (moral task "Andrey")

Age relation -Junior/Senior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Andrey's shoes?	475,500	800,500	-,708	,479
How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make?	372,000	697,000	-2,284	,022
Whom do you sympathize in this situation? Why?	495,000	1398,000	-,454	,650
What feelings does Andrey experience?	395,000	720,000	-1,896	,058
Have you experienced the same feelings of Andrey once you got to know her difficult situation?	523,500	848,500	-,020	,984
What do you think about the participants of this situation? - Andrey	426,500	751,500	-1,529	,126
What do you think about the participants of this situation? - Parents	474,000	799,000	-,752	,452
What do you think about the participants of this situation? - Friends	391,000	716,000	-1,990	,047
Wherein does a conflict of this situation lie?	371,500	696,500	-2,272	,023
How's the situation viewed by Andrey's Friends?	374,000	699,000	-2,162	,031
Do you respect the Andrey's friends' attitude? Why?	411,000	736,000	-1,598	,110
How can Andrey argue in this situation, making a decision on how to act?	396,000	721,000	-1,986	,047
What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone?	378,500	703,500	-2,495	,013
What will Andrey feel if he steals the cellular phone?	468,500	793,500	-,985	,325
What do you think about relations between Andrey and his friends?	363,000	688,000	-2,370	,018
What would happen if Andrey steals the cellular phone from the table?	374,500	699,500	-2,169	,030
What would happen if Andrey does not give back the cellular phone before his father returns back home?	301,000	626,000	-3,500	,000
Empathy Index	314,000	639,000	-2,777	,005

4.4.4.3b Statistical analysis of gender differences (moral tasks "Misha", "Nikita" and "Andrey")

Moral task "Misha"

Table 4.40 shows us the distribution of means depending on the gender differences of students that solved task "Misha". Results showed prevailing means of females' answers mostly on all questions except the 1st – *"How would you behave if you were in Misha's shoes?"*, 2nd – *"How would*

the other participants treat Misha's behavior if he makes the same decision like you wish to make?" and 18th – "What do you think about friendship between Misha and Snake?".

Table 4.40. Gender differences of students' answers- means and standard deviations (moral task "Misha")

Sex - Male/Female Students	Male students		Female students	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Misha's shoes?	2,9615	,77360	2,9310	,79871
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	2,2692	,72430	2,1034	,77205
Whom do you sympathize in this situation?	2,8462	1,95330	3,0345	1,76236
Whom do you sympathize in this situation? Why?	1,6923	,73589	1,7241	,75103
What feelings does Misha experience?	2,0000	,48990	2,0690	,45756
Have you experienced the same feelings of Misha once you got to know his difficult situation?	2,2692	1,21845	2,4483	1,24172
What do you think about the participants of this situation? - Misha	1,8846	,71144	2,0690	,52989
What do you think about the participants of this situation? - Parents	1,7692	,51441	1,9655	,32544
What do you think about the participants of this situation? - Snake	1,8077	,49147	1,8276	,46820
Wherein does a conflict of this situation lie?	2,4231	,80861	2,6207	,67685
How is the situation viewed by Parents?	1,8077	,56704	2,1034	,48879
Do you respect the parents' attitude?	2,9615	,99923	3,2414	,73946
Do you respect the parents' attitude? Why?	1,8462	,73170	2,0345	,62580
How can Misha argue in this situation, making a decision on how to act?	2,1923	,80096	2,5517	,63168
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	1,8846	,51590	2,3103	,47082
What will Misha feel if he returns the change but his parents refuse his request for money?	1,8462	,46410	2,0345	,49877
Whose aims do you find most worthy in this situation?	2,5385	1,50282	2,7241	1,66683
What do you think about friendship between Misha and Snake?	2,0769	,39223	1,8966	,61788
What would happen if Misha gives the change back to the parents?	1,9615	,34418	2,1034	,30993
What would happen if Misha buys a gift for his friend with the change?	1,9615	,44549	2,1724	,38443
Empathy Index	10,3462	2,03848	11,5862	1,61505

Statistical differences between young man and ladies (Table 4.41) appeared to be significant on three items: "How is the situation viewed by Parents?" ($p=,043$), "What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?" ($p=,004$) and "Empathy Index" ($p=,021$).

Table 4.41. Statistical analysis of registered differences between male and female students (moral task "Misha")

Sex - Male/Female Students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Misha's shoes?	368,500	803,500	-,153	,879
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	333,000	768,000	-,798	,425
Whom do you sympathize in this situation? Why?	369,000	720,000	-,147	,883
What feelings does Misha experience?	354,000	705,000	-,538	,591
Have you experienced the same feelings of Misha once you got to know his difficult situation?	344,500	695,500	-,570	,569
What do you think about the participants of this situation? - Misha	320,000	671,000	-1,110	,267
What do you think about the participants of this situation? - Parents	305,500	656,500	-1,733	,083
What do you think about the participants of this situation? – Snake	369,500	720,500	-,167	,868
Wherein does a conflict of this situation lie?	331,000	682,000	-,936	,349
How is the situation viewed by Parents?	281,000	632,000	-2,027	,043
Do you respect the parents' attitude? Why?	320,500	671,500	-1,056	,291
How can Misha argue in this situation, making a decision on how to act?	284,500	635,500	-1,727	,084
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	239,000	590,000	-2,920	,004
What will Misha feel if he returns the change but his parents refuse his request for money?	314,500	665,500	-1,419	,156
What do you think about friendship between Misha and Snake?	317,500	752,500	-1,284	,199
What would happen if Misha gives the change back to the parents?	326,500	677,500	-1,574	,115
What would happen if Misha buys a gift for his friend with the change?	305,000	656,000	-1,809	,070
Empathy Index	243,000	594,000	-2,311	,021

It was of interest to explore the differences on the "*Empathy Index*" between different age and gender groups. Results you could see in Table 4.35 and Table 4.41. One can easily find significant differences for the senior students ($p=,009$) and the females ($p=,021$) in comparison to the junior and male students.

Moral task "Nikita"

Table 4.42 presents distribution of means depending on the gender differences. Similar to the task "Misha" one can see much higher means of answers achieved by female students on mostly all questions, besides 3rd "*Whom do you sympathize in this situation?*", 6th - "*Have you experienced the same feelings of Nikita once you got to know his difficult situation?*", 8th - "*What do you think about the*

participants of this situation? - Old lady", and 15th - "What Nikita has to do with Old Lady and the Serious man in this situation"?".

Table 4.42. Gender differences of students' answers- means and standard deviations (moral task "Nikita")

Sex – Male/Female Students	Male students		Female students	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Nikita's shoes?	2,6111	,64488	2,8444	,70568
How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make?	1,7778	,68080	2,1333	,75679
Whom do you sympathize in this situation?	3,0278	1,31987	2,7333	1,51357
Whom do you sympathize in this situation? Why?	1,4444	,65222	1,8000	,86865
What feelings does Nikita experience?	1,8889	,62234	2,2444	,64511
Have you experienced the same feelings of Nikita once you got to know his difficult situation?	2,7222	1,18590	2,2667	1,03133
What do you think about the participants of this situation? - Nikita	1,7778	,68080	1,8222	,71633
What do you think about the participants of this situation? - Old lady	1,8611	,79831	1,8000	,69413
What do you think about the participants of this situation? - Serious man	1,8611	,63932	1,9556	,67270
Wherein does a conflict of this situation lie?	1,8611	,68255	2,1333	,84208
How is the situation viewed by the Old Lady?	1,9167	,64918	2,0444	,76739
How can Nikita argue in this situation, making a decision on how to act?	1,9444	,75383	2,3333	,67420
What will Nikita feel if he gives back the money to the owner or to the poor old lady?	1,8611	,72320	2,1556	,76739
Whose aims do you find most worthy in this situation?	1,8889	1,38930	1,9778	1,35661
What Nikita has to do with Old Lady and the Serious man in this situation?	1,8333	,37796	1,8222	,53466
What would happen if Nikita gives the money back to the owner?	1,8333	,56061	2,0444	,47461
What would happen if Nikita gives the money to the Old lady?	1,9167	,55420	1,9778	,54309
What would happen if Nikita keeps the money?	1,8333	,56061	2,0667	,61791
Empathy Index	5,6944	1,58239	6,7333	1,52852

Statistical significance was found between the different genders in solving task "Nikita" (see Table 4.43 for details). Female students were much better in three items: "*What feelings does Nikita experience?*" ($p=,015$) "*How can Nikita argue in this situation, making a decision on how to act?*" ($p=,020$) and on "*Empathy Index*" ($p=,003$).

Table 4.43. Statistical analysis of registered differences between male and female students (moral task "Nikita")

Age relation -Junior/Senior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Nikita's shoes?	681,000	1347,000	-1,352	,176
How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make?	601,000	1267,000	-2,136	,033
Whom do you sympathize in this situation? Why?	638,500	1304,500	-1,816	,069
What feelings does Nikita experience?	581,500	1247,500	-2,437	,015
Have you experienced the same feelings of Nikita once you got to know his difficult situation?	618,500	1653,500	-1,892	,059
What do you think about the participants of this situation? - Nikita	786,000	1452,000	-,249	,803
What do you think about the participants of this situation? - Old lady	783,500	1818,500	-,271	,786
What do you think about the participants of this situation? - Serious man	751,000	1417,000	-,629	,529
Wherein does a conflict of this situation lie?	655,000	1321,000	-1,568	,117
How is the situation viewed by the Old Lady?	733,500	1399,500	-,790	,430
How can Nikita argue in this situation, making a decision on how to act?	582,500	1248,500	-2,333	,020
What will Nikita feel if he gives back the money to the owner or to the poor old lady?	638,500	1304,500	-1,744	,081
What Nikita has to do with Old Lady and the Serious man in this situation?	792,000	1827,000	-,228	,820
What would happen if Nikita gives the money back to the owner?	660,000	1326,000	-1,828	,068
What would happen if Nikita gives the money to the Old lady?	767,500	1433,500	-,503	,615
What would happen if Nikita keeps the money?	655,500	1321,500	-1,726	,084
Empathy Index	500,000	1166,000	-2,995	,003

Again (like with task "Misha") significant differences were achieved by the senior students ($p=,003$) and the females ($p=,003$) in comparison to the junior and male students on "*Empathy Index*". It is clearly shown in Table 4.37 and Table 4.43.

Moral task "Andrey"

Like with previous two groups female students showed higher means solving task "Andrey" on mostly all of the questions, in general (see Table 4.44 for details).

Table 4.44. Gender differences of students' answers- means and standard deviations (moral task "Andrey")

Sex - Male/Female Students	Male students		Female students	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Andrey's shoes?	2,5600	,50662	2,6905	,78050
How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make?	1,6800	,47610	2,0476	,66083
Whom do you sympathize in this situation?	3,0400	1,83666	3,6667	1,66260
Whom do you sympathize in this situation? Why?	1,4800	,58595	1,4762	,74041
What feelings does Andrey experience?	2,0400	,67577	2,3571	,57685
Have you experienced the same feelings of Andrey once you got to know his difficult situation?	2,4800	1,29486	2,5000	,99388
What do you think about the participants of this situation? - Andrey	1,6800	,62716	1,8810	,50376
What do you think about the participants of this situation? - Parents	1,6000	,57735	1,7143	,59615
What do you think about the participants of this situation? - Friends	1,5600	,65064	1,8333	,53723
Wherein does a conflict of this situation lie?	2,0400	,45461	2,3571	,65598
How's the situation viewed by Andrey's Friends?	1,7200	,61373	2,0952	,69175
Do you respect the Andrey's friends' attitude?	2,2800	1,24231	1,9762	1,02382
Do you respect the Andrey's friends' attitude? Why?	1,6000	,64550	1,9048	,75900
How can Andrey argue in this situation, making a decision on how to act?	2,0800	,40000	2,3333	,61154
What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone?	1,8800	,33166	2,1905	,55163
What will Andrey feel if he steals the cellular phone?	2,0400	,53852	2,1667	,43710
Whose aims do you find most worthy in this situation?	2,9600	1,56738	3,4762	1,69990
What do you think about relations between Andrey and his friends?	1,5600	,50662	1,9524	,66083
What would happen if Andrey steals the cellular phone from the table?	1,8000	,57735	2,1667	,69551
What would happen if Andrey does not give back the cellular phone before his father returns back home?	1,6800	,47610	2,1905	,55163
Empathy Index	10,0800	1,52534	11,4048	1,90070

As observed in previous tasks results, nonparametric test does not show as much differences like as during descriptive statistics (Table 4.45). Significant differences between female and male students were found only on two questions "*What do you think about the participants of this situation? - Friends*" ($p=,016$) and "*What would happen if Andrey steals the cellular phone from the table?*" ($p=,012$).

Table 4.45. Statistical analysis of registered differences between male and female students (moral "Andrey")

Sex - Male/Female Students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Andrey's shoes?	528,000	1056,000	-,443	,658
How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make?	536,000	1166,000	-,347	,729
Whom do you sympathize in this situation? Why?	502,500	1132,500	-,843	,399
What feelings does Andrey experience?	492,000	1122,000	-,960	,337
Have you experienced the same feelings of Andrey once you got to know her difficult situation?	540,000	1170,000	-,260	,795
What do you think about the participants of this situation? - Andrey	433,500	1063,500	-1,902	,057
What do you think about the participants of this situation? - Parents	543,500	1071,500	-,236	,814
What do you think about the participants of this situation? - Friends	392,000	1022,000	-2,416	,016
Wherein does a conflict of this situation lie?	456,500	1086,500	-1,484	,138
How's the situation viewed by Andrey's Friends?	496,000	1126,000	-,887	,375
Do you respect the Andrey's friends' attitude? Why?	501,500	1131,500	-,794	,427
How can Andrey argue in this situation, making a decision on how to act?	461,500	1091,500	-1,468	,142
What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone?	543,500	1173,500	-,272	,786
What will Andrey feel if he steals the cellular phone?	499,000	1129,000	-1,030	,303
What do you think about relations between Andrey and his friends?	437,000	1067,000	-1,742	,081
What would happen if Andrey steals the cellular phone from the table?	379,000	1009,000	-2,526	,012
What would happen if Andrey does not give back the cellular phone before his father returns back home?	476,000	1106,000	-1,271	,204
Empathy Index	418,000	1048,000	-1,809	,070

4.4.4.3c Statistical analysis of differences between Control and Experimental groups (moral tasks "Misha", "Nikita" and "Andrey")

Moral task "Misha"

Below are presented the data, which is of most interest in terms of this study is presented – a comparison of Control and Experimental groups, which were used in solving the task "Misha".

Table 4.46. Presentation format differences of students' answers- means and standard deviations (moral task "Misha")

Group - Control/Experimental	Control - Text		Experimental - Video	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Misha's shoes?	3,0741	,78082	2,8214	,77237
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	2,3704	,68770	2,0000	,76980
Whom do you sympathize in this situation?	3,0370	1,80771	2,8571	1,89960
Whom do you sympathize in this situation? Why?	1,7778	,75107	1,6429	,73102
What feelings does Misha experience?	2,0370	,33758	2,0357	,57620
Have you experienced the same feelings of Misha once you got to know his difficult situation?	2,3704	1,24493	2,3571	1,22366
What do you think about the participants of this situation? - Misha	1,8148	,55726	2,1429	,65060
What do you think about the participants of this situation? - Parents	1,8519	,45605	1,8929	,41627
What do you think about the participants of this situation? – Snake	1,7407	,44658	1,8929	,49735
Wherein does a conflict of this situation lie?	2,5556	,75107	2,5000	,74536
How is the situation viewed by Parents?	1,9259	,47442	2,0000	,60858
Do you respect the parents' attitude?	3,3333	,78446	2,8929	,91649
Do you respect the parents' attitude? Why?	1,9630	,70610	1,9286	,66269
How can Misha argue in this situation, making a decision on how to act?	2,2222	,80064	2,5357	,63725
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	1,9259	,38490	2,2857	,59982
What will Misha feel if he returns the change but his parents refuse his request for money?	1,8889	,50637	2,0000	,47140
Whose aims do you find most worthy in this situation?	2,8889	1,67179	2,3929	1,47421
What do you think about friendship between Misha and Snake?	1,8889	,42366	2,0714	,60422
What would happen if Misha gives the change back to the parents?	2,0000	,39223	2,0714	,26227
What would happen if Misha buys a gift for his friend with the change?	2,0370	,43690	2,1071	,41627
Empathy Index	10,6296	1,86358	11,3571	1,92862

In the Table 4.46 one can find the students' answers for the questions in comparison among Control and Experimental groups. However, for gaining more clear answer concerning the differences one needs to perform a nonparametric test to receive statistical significance.

Further results of junior and senior students will be discussed separately.

Young adolescents' results

Below in the Table 4.47 *Mann-Whitney Test* for Control and Experimental groups of junior (6th – 7th Grade) students is presented.

Table 4.47. Statistical analysis of registered differences between Control and Experimental groups of junior students (moral task "Misha")

Group - Control/Experimental–Junior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Misha's shoes?	49,500	140,500	-2,576	,010
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	61,500	152,500	-2,059	,039
Whom do you sympathize in this situation? Why?	92,000	228,000	-,567	,571
What feelings does Misha experience?	96,500	232,500	-,439	,660
Have you experienced the same feelings of Misha once you got to know his difficult situation?	77,000	213,000	-1,225	,221
What do you think about the participants of this situation? - Misha	101,000	237,000	-,162	,871
What do you think about the participants of this situation? - Parents	75,000	166,000	-2,124	,034
What do you think about the participants of this situation? – Snake	77,000	168,000	-1,597	,110
Wherein does a conflict of this situation lie?	50,000	141,000	-2,738	,006
How is the situation viewed by Parents?	93,000	229,000	-,615	,538
Do you respect the parents' attitude? Why?	90,500	181,500	-,672	,502
How can Misha argue in this situation, making a decision on how to act?	93,500	184,500	-,496	,620
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	91,000	227,000	-,807	,420
What will Misha feel if he returns the change but his parents refuse his request for money?	101,000	192,000	-,168	,866
What do you think about friendship between Misha and Snake?	85,500	221,500	-1,084	,278
What would happen if Misha gives the change back to the parents?	90,000	226,000	-1,397	,162
What would happen if Misha buys a gift for his friend with the change?	102,000	238,000	-,146	,884
Empathy Index	77,000	168,000	-1,213	,225

Significant differences were obtained for the 10th item "Wherein does a conflict of this situation lie?" (p=,006) and 2nd – "How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?" (p=,039), 8th – "What do you think about the participants of this situation? - Parents" (p=,034), and the 1st item of the questionnaire for task "Misha" – "How would you behave if you were in Misha's shoes?" (p=,010). Within these groups comparison there were no significant differences for the "Empathy Index".

Older adolescents' results

The data was provided with another test aimed to find significant differences between Control and Experimental groups of senior students which solved task "Misha". The results one can easily found in Table 4.48.

Senior students demonstrated a larger amount of significant differences in comparison to their younger colleagues (see Table 4.48 for details).

Table 4.48. Statistical analysis of registered differences between Control and Experimental groups of senior students (moral task "Misha")

Group - Control/Experimental–Senior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Misha's shoes?	70,000	136,000	-,688	,491
How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?	72,000	192,000	-,582	,561
Whom do you sympathize in this situation? Why?	53,500	173,500	-1,656	,098
What feelings does Misha experience?	76,000	196,000	-,491	,623
Have you experienced the same feelings of Misha once you got to know his difficult situation?	64,500	184,500	-,997	,319
What do you think about the participants of this situation? - Misha	44,500	110,500	-2,188	,029
What do you think about the participants of this situation? - Parents	47,500	113,500	-2,348	,019
What do you think about the participants of this situation? – Snake	39,000	105,000	-2,907	,004
Wherein does a conflict of this situation lie?	42,000	108,000	-2,707	,007
How is the situation viewed by Parents?	82,500	202,500	,000	1,000
Do you respect the parents' attitude? Why?	78,500	144,500	-,226	,821
How can Misha argue in this situation, making a decision on how to act?	42,000	108,000	-2,707	,007
What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?	43,500	109,500	-2,355	,019
What will Misha feel if he returns the change but his parents refuse his request for money?	66,000	132,000	-1,247	,212
What do you think about friendship between Misha and Snake?	71,500	137,500	-,702	,483
What would happen if Misha gives the change back to the parents?	80,000	200,000	-,207	,836
What would happen if Misha buys a gift for his friend with the change?	73,500	139,500	-,635	,526
Empathy Index	31,500	97,500	-2,720	,007

Here significant results for two central questions: 10th "Wherein does a conflict of this situation lie?" (p=,007) and 14th "How can Misha argue in this situation, making a decision on how to act?" (p=,007) were achieved. Also significant results for all questions concerning the understanding of the objectives and feelings of the participants of presented situation, namely 7th – "What do you think about the participants of this situation? - Misha" (p=,029), 8th – "What do you think about the participants of this situation? - Parents" (p=,019), 9th – "What do you think about the participants of this situation? – Snake" (p=,004) and 15th – "What shall the parents of Misha feel if he will NOT give back the change but spend it on

the gift for his friend?" ($p=,019$) question were achieved. Additionally quite high significant differences were found for the *"Empathy Index"* ($p=,007$).

Moral task "Nikita"

Given below is the data processing with its comparison between Control and Experimental groups for the task "Nikita". In the Table 4.49 one can find results of these calculations that show that Experimental group achieved higher means on mostly all questions from the questionnaire to the task "Nikita". To get more information on differences between these two groups a nonparametric test to check statistical significance of the achieved differences were performed.

Table 4.49. Presentation format differences of students' answers- means and standard deviations (moral task "Nikita")

Group - Control/Experimental	Control - Text		Experimental - Video	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Nikita's shoes?	2,6607	,69483	2,9200	,64031
How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make?	1,7857	,70619	2,4000	,64550
Whom do you sympathize in this situation?	2,7321	1,31413	3,1600	1,65025
Whom do you sympathize in this situation? Why?	1,6071	,73059	1,7200	,93630
What feelings does Nikita experience?	1,8571	,58554	2,6000	,50000
Have you experienced the same feelings of Nikita once you got to know his difficult situation?	2,4643	1,12758	2,4800	1,12250
What do you think about the participants of this situation? - Nikita	1,6250	,64842	2,2000	,64550
What do you think about the participants of this situation? - Old lady	1,7500	,71985	2,0000	,76376
What do you think about the participants of this situation? - Serious man	1,7679	,66033	2,2400	,52281
Wherein does a conflict of this situation lie?	1,8036	,72412	2,4800	,71414
How is the situation viewed by the Old Lady?	1,8214	,63553	2,3600	,75719
How can Nikita argue in this situation, making a decision on how to act?	1,9286	,68376	2,6800	,55678
What will Nikita feel if he gives back the money to the owner or to the poor old lady?	1,8393	,68162	2,4400	,76811
Whose aims do you find most worthy in this situation?	1,8036	1,22726	2,2400	1,61452
What Nikita has to do with Old Lady and the Serious man in this situation?	1,7321	,44685	2,0400	,45461
What would happen if Nikita gives the money back to the owner?	1,8929	,56177	2,0800	,40000
What would happen if Nikita gives the money to the Old lady?	1,8571	,51974	2,1600	,55377
What would happen if Nikita keeps the money?	1,8393	,59625	2,2400	,52281
Empathy Index	5,6250	1,31512	7,7200	1,30767

Young adolescents' results

The results of the test are presented in the Table 4.50 – which provide us with results on Mann-Whitney Test for Control and Experimental groups of junior (6th – 7th Grade) students.

Table 4.50. Statistical analysis of registered differences between Control and Experimental groups of junior students (moral task "Nikita")

Group - Control/Experimental–Junior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Nikita's shoes?	34,000	170,000	-2,050	,040
How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make?	26,000	162,000	-2,588	,010
Whom do you sympathize in this situation? Why?	48,500	184,500	-1,101	,271
What feelings does Nikita experience?	34,000	170,000	-2,136	,033
Have you experienced the same feelings of Nikita once you got to know his difficult situation?	55,500	91,500	-,548	,584
What do you think about the participants of this situation? - Nikita	16,000	152,000	-3,156	,002
What do you think about the participants of this situation? - Old lady	25,500	161,500	-2,586	,010
What do you think about the participants of this situation? - Serious man	25,500	161,500	-2,531	,011
Wherein does a conflict of this situation lie?	24,000	160,000	-2,596	,009
How is the situation viewed by the Old Lady?	20,000	156,000	-2,861	,004
How can Nikita argue in this situation, making a decision on how to act?	28,500	164,500	-2,308	,021
What will Nikita feel if he gives back the money to the owner or to the poor old lady?	39,500	175,500	-1,619	,106
What Nikita has to do with Old Lady and the Serious man in this situation?	64,000	100,000	,000	1,000
What would happen if Nikita gives the money back to the owner?	46,000	182,000	-1,455	,146
What would happen if Nikita gives the money to the Old lady?	52,000	188,000	-,979	,328
What would happen if Nikita keeps the money?	43,000	179,000	-1,495	,135
Empathy Index	19,000	155,000	-2,835	,005

So, in the Table 4.50 one can clearly summarize the prevalence of Experimental group answers on more than half of all questions: 1st – "How would you behave if you were in Nikita's shoes?" (p=**,040**). 2nd – "How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make?" (p=**,010**), 5th – "What feelings does Nikita experience?" (p=**,033**), 7th - "What do you think about the participants of this situation? – Nikita" (p=**,002**), 8th – "What do you think about the participants of this situation? - Old lady" (p=**,010**), 9th – "What do you think about the participants of this situation? - Serious man" (p=**,011**), 10th – "Wherein does a conflict of this situation lie?" (p=**,009**), 11th -

"How is the situation viewed by the Old Lady?" (p=,004), 12th – "How can Nikita argue in this situation, making a decision on how to act?" (p=,021) and 19th – "Empathy Index" (p=,005).

Older adolescents' results

Following the test on juniors, statistical data were provided with another test aimed to find significant differences between Control and Experimental groups of senior students (Table 4.51.)

Table 4.51. Statistical analysis of registered differences between Control and Experimental groups of senior students (moral task "Nikita")

Group - Control/Experimental–Senior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Nikita's shoes?	134,000	287,000	-,403	,687
How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make?	86,000	239,000	-2,196	,028
Whom do you sympathize in this situation? Why?	138,500	291,500	-,239	,811
What feelings does Nikita experience?	47,000	200,000	-3,779	,000
Have you experienced the same feelings of Nikita once you got to know his difficult situation?	81,500	234,500	-2,266	,023
What do you think about the participants of this situation? - Nikita	78,000	231,000	-2,503	,012
What do you think about the participants of this situation? - Old lady	108,500	261,500	-1,351	,177
What do you think about the participants of this situation? - Serious man	71,500	224,500	-2,973	,003
Wherein does a conflict of this situation lie?	87,000	240,000	-2,108	,035
How is the situation viewed by the Old Lady?	114,500	267,500	-1,140	,254
How can Nikita argue in this situation, making a decision on how to act?	62,000	215,000	-3,167	,002
What will Nikita feel if he gives back the money to the owner or to the poor old lady?	72,000	225,000	-2,703	,007
What Nikita has to do with Old Lady and the Serious man in this situation?	84,000	237,000	-2,811	,005
What would happen if Nikita gives the money back to the owner?	144,000	297,000	-,023	,981
What would happen if Nikita gives the money to the Old lady?	74,500	227,500	-2,844	,004
What would happen if Nikita keeps the money?	66,000	219,000	-2,977	,003
Empathy Index	29,000	182,000	-4,066	,000

Like the state of affairs with statistics of young adolescents' results, senior students, who also watched the experimental movie, achieved significant differences on almost all questions: 2nd – "How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make?" (p=,028), 6th – "Have you experienced the same feelings of Nikita once you got to know his difficult situation?" (p=,023), 7th – "What do you think about the participants of this situation? - Nikita" (p=,012), 9th – "What do you think about the participants of this situation? - Serious man" (p=,003), 10th –

"Wherein does a conflict of this situation lie?" ($p=,035$), 12th – "How can Nikita argue in this situation, making a decision on how to act?" ($p=,002$), 13th – "What will Nikita feel if he gives back the money to the owner or to the poor old lady?" ($p=,007$), 15th – "What Nikita has to do with Old Lady and the Serious man in this situation?" ($p=,005$), 17th – "What would happen if Nikita gives the money to the Old lady?" ($p=,004$), 18th – "What would happen if Nikita keeps the money?" ($p=,003$) and 19th – "Empathy Index" ($p=,000$). As it is possible to see the highest significant differences were found for the questions No 5 – "What feelings does Nikita experience?" ($p=,000$), and the – "Empathy Index" ($p=,000$).

Moral task "Andrey"

Table 4.52. Presentation format differences of students' answers- means and standard deviations (moral task "Andrey")

Group - Control/Experimental	Control - Text		Experimental - Video	
	Mean	Std. Deviation	Mean	Std. Deviation
How would you behave if you were in Andrey's shoes?	2,5000	,63828	2,7714	,73106
How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make?	1,6429	,48795	2,1429	,64820
Whom do you sympathize in this situation?	2,9286	1,80388	3,7714	1,61037
Whom do you sympathize in this situation? Why?	1,6071	,73733	1,4000	,65079
What feelings does Andrey experience?	2,0714	,66269	2,3143	,58266
Have you experienced the same feelings of Andrey once you got to know his difficult situation?	2,6786	1,09048	2,3429	1,05560
What do you think about the participants of this situation? - Andrey	1,6429	,62148	1,9429	,48159
What do you think about the participants of this situation? - Parents	1,7143	,59982	1,6857	,58266
What do you think about the participants of this situation? - Friends	1,5714	,63413	1,8571	,55002
Wherein does a conflict of this situation lie?	2,0357	,57620	2,4857	,50709
How's the situation viewed by Andrey's Friends?	1,6786	,61183	2,2286	,64561
Do you respect the Andrey's friends' attitude?	2,4286	1,23013	1,8286	,98476
Do you respect the Andrey's friends' attitude? Why?	1,5714	,74180	1,9714	,70651
How can Andrey argue in this situation, making a decision on how to act?	2,0000	,54433	2,4571	,50543
What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone?	1,9286	,53945	2,2000	,47279
What will Andrey feel if he steals the cellular phone?	1,9643	,50787	2,2571	,44344
Whose aims do you find most worthy in this situation?	2,8214	1,80644	3,6571	1,43369
What do you think about relations between Andrey and his friends?	1,3929	,49735	2,1429	,55002
What would happen if Andrey steals the cellular phone from the table?	1,7857	,73822	2,2000	,58410
What would happen if Andrey does not give back the cellular phone before his father returns back home?	1,8214	,61183	2,1143	,52979
Empathy Index	10,0000	2,00000	11,7143	1,46672

In the Table 4.52 above one can find the students' answers for the questions in comparison among Control and Experimental groups solving moral task "Andrey".

One can find results higher means on mostly all questions (especially such important questions as "*Wherein does a conflict of this situation lie?*", "*How can Nikita argue in this situation, making a decision on how to act?*" and "*Empathy Index*") from the questionnaire achieved by the students that watched video-based moral dilemma (Experimental group).

Young adolescents' results

Below in the Table 4.53 it is possible to find Mann-Whitney Test on results of Control and Experimental groups of junior (6th – 7th Grade) students which solved main task "Andrey".

Table 4.53. Statistical analysis of registered differences between Control and Experimental groups of junior students (moral task "Andrey")

Group - Control/Experimental–Junior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Andrey's shoes?	86,500	257,500	-2,440	,015
How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make?	84,000	255,000	-2,604	,009
Whom do you sympathize in this situation? Why?	142,500	295,500	-,424	,672
What feelings does Andrey experience?	95,500	266,500	-2,177	,029
Have you experienced the same feelings of Andrey once you got to know his difficult situation?	141,000	312,000	-,416	,677
What do you think about the participants of this situation? - Andrey	87,000	258,000	-2,494	,013
What do you think about the participants of this situation? - Parents	131,000	302,000	-,831	,406
What do you think about the participants of this situation? - Friends	90,000	261,000	-2,339	,019
Wherein does a conflict of this situation lie?	99,500	270,500	-2,164	,030
How's the situation viewed by Andrey's Friends?	103,000	274,000	-1,793	,073
Do you respect the Andrey's friends' attitude? Why?	103,500	274,500	-1,771	,077
How can Andrey argue in this situation, making a decision on how to act?	99,500	270,500	-2,164	,030
What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone?	123,500	294,500	-1,227	,220
What will Andrey feel if he steals the cellular phone?	108,000	279,000	-1,872	,061
What do you think about relations between Andrey and his friends?	50,500	221,500	-3,725	,000
What would happen if Andrey steals the cellular phone from the table?	89,000	260,000	-2,274	,023
What would happen if Andrey does not give back the cellular phone before his father returns back home?	117,000	288,000	-1,384	,166
Empathy Index	55,000	226,000	-3,289	,001

Students from Experimental group showed significant differences for two central questions: Question N 10 *"Wherein does a conflict of this situation lie?"* ($p=,030$) and N 14 *"How can Andrey argue in this situation, making a decision on how to act?"* ($p=,030$).

Also significant results for all questions concerning the understanding of the objectives and feelings of the participants in the present situation, meaning 7th – *"What do you think about the participants of this situation? - Andrey"* ($p=,013$), and 9th – *"What do you think about the participants of this situation? – Friends"* ($p=,019$) were acquired. High significance was achieved for the question *"How would you behave if you were in Andrey's shoes?"* ($p=,015$) (Question No 1), *"How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make?"* ($p=,009$) (Question No 2), *"What do you think about relations between Andrey and his friends?"* ($p=,000$) (Question No 18). Last but not least important the *"Empathy Index"* ($p=,001$) was also of high significance for results of junior students from Experimental group (in comparison with the Control group) in this situation.

Older adolescents' results

Table 4.54 (see below) shows Mann-Whitney Test for Control and Experimental groups of senior (9th – 10th Grade) students that solved the task "Andrey". Likewise with younger students mostly half of the questions from the questionnaire, including questions which reflect objectivation of the moral context (*"Wherein does a conflict of this situation lie?"*, *"How can Andrey argue in this situation, making a decision on how to act?"* etc.): *"How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make?"* ($p=,023$), *"Have you experienced the same feelings of Andrey once you got to know his difficult situation?"* ($p=,028$), *"Wherein does a conflict of this situation lie?"* ($p=,018$), *"How's the situation viewed by Andrey's Friends?"* ($p=,005$), *"How can Andrey argue in this situation, making a decision on how to act?"* ($p=,025$), *"What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone?"* ($p=,009$), *"What do you think about relations between Andrey and his friends?"* ($p=,023$), and *"Empathy Index"* ($p=,025$) .

Table 4.54. Statistical analysis of registered differences between Control and Experimental groups of senior students (moral task "Andrey")

Group - Control/Experimental–Senior students	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
How would you behave if you were in Andrey's shoes?	86,000	177,000	-,268	,789
How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make?	52,000	157,000	-2,270	,023
Whom do you sympathize in this situation? Why?	69,000	160,000	-1,210	,226
What feelings does Andrey experience?	68,000	159,000	-1,265	,206
Have you experienced the same feelings of Andrey once you got to know his difficult situation?	47,500	138,500	-2,196	,028
What do you think about the participants of this situation? - Andrey	91,000	182,000	,000	1,000
What do you think about the participants of this situation? - Parents	82,500	173,500	-,463	,643
What do you think about the participants of this situation? - Friends	85,000	190,000	-,379	,705
Wherein does a conflict of this situation lie?	47,000	152,000	-2,357	,018
How's the situation viewed by Andrey's Friends?	38,500	143,500	-2,835	,005
Do you respect the Andrey's friends' attitude? Why?	73,000	178,000	-,998	,318
How can Andrey argue in this situation, making a decision on how to act?	52,000	157,000	-2,239	,025
What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone?	52,000	157,000	-2,615	,009
What will Andrey feel if he steals the cellular phone?	69,500	174,500	-1,550	,121
What do you think about relations between Andrey and his friends?	52,000	157,000	-2,275	,023
What would happen if Andrey steals the cellular phone from the table?	78,000	183,000	-,746	,455
What would happen if Andrey does not give back the cellular phone before his father returns back home?	73,000	178,000	-1,050	,294
Empathy Index	46,000	151,000	-2,242	,025

4.4.5 Summary of Results

I will follow the same scheme of study goals analysis as it has been done for the Main study 1. As a *first goal* of this study was aimed at the preparation and shooting of videos, which would be used for presenting dramatized moral dilemmas. Thus in addition to the movie "Misha" (see Figure 4.6) used in Pilot and first Main studies, two other movies: "Nikita" (see Figure 4.7) and "Andrey" (see Figure 4.8) were shot. The *second goal* was to adjust and test special experimental questionnaire that was developed in frames of Pilot study and updated in the first Main study.

To test the main hypothesis of Control and Experimental group results differences, one had to *achieve equalization of compared groups* with regards to the initial level of moral competence in

pretest. This notion represented the *third goal*. Thus, adolescents from both age-periods (6th, 7th and 9th, 10th graders) were presented with a pretest moral task "Natasha". As it could be found from the results above, generally no significant differences were found between Control and Experimental group subjects and they have almost the same initial level of moral competence. There exist differences on many parameters between boys and girls. Nevertheless mostly all of these distinctions appeared to be insignificant in comparison with significant distinctions among junior (6th-7th Grade) and senior (9th -10th Grade) students. Girls appear to be more "emotionally" competent, showed significantly higher level of "*Empathy index*" and were able to predict the probable consequence of one or another way of behaving in presented moral dilemma. Surely it might be useful to compare Control and Experimental groups by initial intellectual, emotional and moral development level in pretest. Unfortunately, due to the organizational management and time pressure I didn't have such a possibility.



Figure 4.6. A shot from the video "Misha"

The fourth general goal of the study was to test the hypothesis as to if there were any significant differences between visualized and textual presentation of moral dilemma in regard to the level of measured moral competence of adolescents. Comparisons of two presentation formats were tested on three different moral tasks – "Misha", "Nikita" and "Andrey".

Significant differences of results on solving task "Misha" were found on one of the most important question that reflected Experimental group students' better understanding of the conflict: understanding of the moral norms contradiction, of the participants ideas, emotions and

objectives, and an inclusion of the students in the situation. However, within junior Control and Experimental group's comparison no significant differences for the "*Empathy Index*" were found.



Figure 4.7. A shot from the video "Nikita"

By solving moral task "Nikita" one can clearly summarize the prevalence of the Experimental group's answers on more than a half of all questions. It shows Experimental group as a more advanced on mostly every main component of moral competence like the ability to have an integrated view of the situation, to analyze consequences of events, to comprehend the values and norms by which the participants of that situation are guided and to take into account all the peculiarities of the conflict and the individuals involved in it etc. In addition "*Empathy Index*" appeared to be highly significant within comparison of senior students. Senior students from the Experimental group who solved moral task "Nikita" appeared to be emotionally deeper and more highly empathised with the situation than their peers from the Control group did.

Results of the Experimental group students (in comparison with the Control one) that solved moral task "Andrey" showed significant differences on mostly half of the questions from the questionnaire, including the ones, which reflect objectivation of the moral context.

In general, senior students have demonstrated larger amount of significant differences in the results obtained when compared to their younger colleagues.



Figure 4.8. A shot from the video "Andrey"

Summing up, such results confirm the notion that visualized presentation of moral dilemma as a specially worked out instructional video shows higher results in solving moral dilemma by adolescents, and consequently higher level of achieved moral competence, independently on the type of presented moral conflict.

Regarding the differences between participants in case of *ages* and *gender*, several regularities were mentioned.

In all the tasks "Misha", "Nikita" and "Andrey" senior students achieved much higher means than younger students did. Young adolescents were better solving questions which aimed to ascertain the person's relations to the participants of the moral dilemma especially its emotional side; they were also more precise in answering the questions concerning parents, which is quite understandable when compared with the older respondents for whom the relations with the parents is already is not so significant (results on task "Misha" and "Nikita"). Nonparametric tests and descriptive statistics results showed prevalence of senior students' results on mostly all parameters on solving the task "Andrey"

Comparison the results of girls and boys while solving presented moral tasks showed much higher means results of girls' answers mostly on all questions besides the ones which were of great interest for male students - especially in a topic concerning men's friendship (task "Misha"). Significant differences between boys and girls were also observed on some "emotional" questions. On both tasks "Misha" and "Nikita" the "*Empathy Index*" appeared significantly

different for the girls' answers. Like with these two moral tasks female students showed higher means solving task "Andrey" on mostly all of the questions, in general. In all tasks results of nonparametric test didn't show much differences like in the descriptive statistics.

Due to the study design limitations (danger of probable interventional effect of one solved moral task on another) unfortunately it was impossible to compare results of different moral tasks solved by one and the same group of students. It is possible to make only preliminary conclusions. Thus all moral tasks presented in video-format showed significant differences on all important questions of the moral tasks questionnaires. Collected data does not really allow asserting whether one task was done better than the others. Some questions were better answered in one task, and some were better answered in other tasks. For example, the question of friendship was much easier and more qualitatively answered by young boys in the task "Misha", and girls were much easily answering the questions on task "Natasha" – which was regarding to the friendship among girls and justice behavior. I suppose this issue to be totally dependent on self-identification with character, moral task importance and interest in the presented moral dilemma topic.

4.5 Discussion

Results of the empirical study can be presented by describing results relatively to the goals and hypotheses of all three studies.

4.5.1 Special diagnostic stimulus video materials

The first goal was to prepare, develop and shoot special videos, which would contain dramatized moral dilemmas and would be related to different types of conflicts (conflicts with coevals, adults, relatives). Surely this goal was subsidiary for the research, but without solving it I could not reach all the other main ones. That was the reason that I paid much attention to the theoretical analysis presented in the thesis and realization of outcomes of this analysis in new videos. This goal was successfully achieved and in addition to the first diagnostic video "Misha" (that was prepared and used during Pilot and first Main study), two other videos- "Nikita" and "Andrey" were made in the framework of the second Main study. To test the efficacy of a new

video stimulus material, textual versions of "main" moral tasks ("Misha", "Nikita" and "Andrey") were made as well as text-based pretest moral tasks ("Friends", "Julia" and "Natasha").

4.5.2 Special diagnostic assessment method

One important goal was to determine the criteria using expert appraisal which would characterize adolescent moral competence whilst solving tasks with moral dilemmas. During the Pilot study and in both Main studies as well, expert appraisal successfully defined the criteria of scaling the qualitative data, which supported the process of collected data coding. That helped a lot to develop a special testing method for adolescent moral competence evaluation, using the experimental questionnaires.

During the second Main study all questionnaires for presented moral dilemmas ("Natasha", "Misha" "Nikita" and "Andrey") were tested on reliability. Results for all the questionnaires showed rather high Cronbach alpha value for $\geq .795$.

4.5.3 Initial moral competence level group comparison

One of the goals of all the three studies was to form comparable Experimental and Control groups with a relatively equal initial level of moral competence, so to prove main assumption (Pilot study) and to test main hypothesis (Main study 1 and Main study 2). To achieve this goal, adolescents were presented with a pretest moral task "Natasha" (task "Friends" and "Julia" in Pilot and Main study 1, correspondingly). The task "Natasha", as well as "Friends" and "Julia", as a pretest tasks showed mostly no significant differences between the two compared groups: Experimental and Control. It means that the initial level of moral competence among all the groups of the same age does not differ a lot.

The girls (as one might expect) demonstrated sufficiently higher level of empathy than the boys did. Distinctions between young and senior (6th,7th Grades and 9th,10th Grades) students appeared to be more meaningful, than distinctions among girls and boys. One could say that such a difference was expected, due to the rather big gap between younger and senior students, but still it was of a great importance, as I had checked a new moral competence testing method. Surely it could be useful to compare Control and Experimental groups by initial intellectual, emotional level in pretest. Unfortunately there was no such possibility.

4.5.4 Comparison of text and video-based presentation of moral dilemmas

The *main goal* of the study was to conduct an empirical research, using the potentials of video-technology as a means to study adolescent moral competence development, and to compare it with traditional textual form of moral dilemma presentation.

Due to the results of both Main studies, and results of Control (text) and Experimental (video) group comparison, one would have all reasons to believe that visualised presentation of moral dilemma as a specially worked out instructional video objectivates main components of moral dilemma and appear to be more adequate to psychological features of adolescence and characteristics of moral development. This issue has been proven in the framework of second Main study on three different types of the moral dilemmas (moral task "Misha", "Nikita" and "Andrey"), where topics relate to the main spheres of moral development, spheres of relations with relatives, coevals and adults. Thus, independently on type of moral dilemma ("Misha", "Nikita" or "Andrey") students who watched the experimental videos - in comparison with students who solved text-based versions of these moral dilemmas) got significantly higher results for central components of moral competence, such as moral conflict comprehension (one can make these conclusion on the basis of the general results of different age groups, gender, and moral task presentation format comparison).

Thus I can assume that by using video, with its main advantages as authenticity (CTGV, 1990; Funke & Schuler, 1998), emotionality and identification- and empathy-stimulating (Ang, 1982; Gaut, 1999; Plantinga, 1999; Smith, 1999) together with significant moral dilemma as a stimulus material, it is possible to elaborate more advanced and prospective method for contemporary adolescents moral competence measurement than a text-based one.

4.5.5 Age and gender differences in solving moral tasks and moral competence among adolescents

One of the goals was to examine the results of research regarding differences between participants of different age and gender.

Female students in second Main study appear to be more experienced with answering mostly all questions of all three different moral tasks - independently on the type of moral

conflict. These facts prove the psychological peculiarities of adolescence, and especially gender differences, which stress higher cognitive (Strand et al., 2006; Willingham & Cole, 1997) and emotional development (Bhosle, 1999; King, 1999; Singh, 2002; Sutarso, 1999; Wing & Love, 2001) of girls in comparison to boys of the same age. Likewise in the result of the second Main study, girls demonstrated significantly higher results with an "*Empathy Index*". Thus, following Tapia (1999) and Dunn (2002) it is possible to explain higher score of girls (than the boys) with regard to empathy, social responsibilities, and interpersonal relationships.

Concerning the differences between *junior and senior age groups* – young and older adolescents, much higher results were achieved by senior students on mostly all questions of all three different moral dilemmas. Senior students have shown significantly higher results in empathizing characters of moral dilemmas. Usually older adolescents achieve a higher degree of autonomy regarding the choice of friends and occupation, of management of their own money, in comparison with young adolescents (Douvan & Adelson, 1966; Bosma et al., 1996). Older adolescents depict higher abilities for social integration (Greenberger, 1984), participate in a larger number of peer and adult-oriented activities (Silverberg & Steinberg, 1986), and are much more induced with negotiation among peers (Peppitone, 1980), with lesser attachment to parents (Pipp et al., 1985), thus they are more interested in solving life problems by their own. Therefore, it is possible that presented tasks are much closer to the actual problems of 9th -10th graders, than to their younger colleagues.

Younger students appeared to be more involved in the emotional component of moral competence; they were more precisely describing relations to other people, especially to parents. This could be explained with the fact that young adolescents still don't have much behavioral autonomy from parental influence (Smith, 1985). So, it is to underline once more the age differences between young and senior teenagers, and regulations of adolescent age development (e.g., Obuhova, 1995; Craig, 1992/2000; Remshmidt, 1994; Piaget, 1983; Zuckerman & Masterov, 1995; Kohlberg, 1964), in particular.

4.5.6 Major and minor hypotheses of the Main studies

4.5.6.1 Major hypothesis of the Main studies

With the results achieved, and the accomplished main goal (see 4.5.4 for details) it is possible to affirm that the main hypothesis: *"visualized presentation of moral dilemma using a specially shot video, will more adequately reflect the level of adolescents moral competence, taking into account psychological features of adolescents and characteristics of adolescent moral development"* has been proved.

4.5.6.2 Minor hypotheses of the Main studies

Regarding the minor hypotheses: minor hypothesis 1 (H₂)⁹ and minor hypothesis 2 (H₃), it is possible to assume that there are differences between young and older adolescents as well as between male and female students in achieved level of moral competence. Received differences are discussed in 4.5.5.

Concerning the minor hypothesis 3 (H₄) I can stress that there are no significant differences between different types of moral task presentation and the level of moral competence related to the type of moral conflicts.

Thus, independently on the type of moral conflict, there are significant differences in the results between video-based (higher level of moral competence) and text-based moral dilemma's presentation. In case of research question 5 *"How does the type of moral conflict affect the moral dilemma's solving results?"* (see 3.3.3) unfortunately there was no possibility to check the test-sensitivity, by comparing answers of the same group in solving different tasks (namely tasks "Misha", "Nikita" and "Andrey"). That was impossible due to the following reason: while solving different tasks, one can occasionally achieve the intervention effect which would appear and grow from solving one task to another, and each time with each new task, students would present much more higher level of moral competence, which would have nothing in common with a type (or contents) of presented moral dilemma. However, it could be found that some of the moral dilemmas seem to be important and significant to one group of student and other tasks are relevant for them, depending on their previous experience, and interest and importance of moral dilemmas topics that, surely, affected the results achieved by students.

⁹ for details see 3.3

5. Conclusion and Strengths of the Work

Theoretical part of my thesis is presented in three parts. *First* Part determines the features of adolescent moral development, underlines the importance of affective component for moral reasoning and moral development, discusses a problem of moral competence definition and its measurement, and stresses through the text the need for a new method of moral dilemma presentation which meets special requirements like, realism, emotionality and significance. *Second* Part uncovers the strengths of video-technology in regard to the educational and psychological needs, in particular, to attain special emotional condition, empathize and as a source of identification. In this part, preference of video-technology for the needs of education, especially for diagnostics and measurement, as well as movie production techniques are presented. *Third* Part finalizes the theoretical introduction of the work; it summarizes important issues mentioned in the previous two Parts. Thus meeting six important conditions - statements regarding the method of moral task presentation using a video-based moral dilemma, a valuable method of adolescent moral competence measurement can be developed. Regarding this point and factors that influence adolescent moral competence, research questions and hypotheses of empirical study were stated. As a result of *empirical* Part of the study, a new method of adolescent moral competence measurement was tested. It was proven that visualized presentation of moral dilemma as a specially worked out instructional video, in comparison with previously used text-based moral dilemma, shows higher results in solving moral dilemma by adolescents, and consequently higher level of achieved moral competence. Additionally age and gender differences in adolescent moral competence were discovered.

Finally it is possible to stress *significance of this research* which uncovers importance of moral sphere for adolescent development on one hand, and on difficulties in its investigation, on the other. Therefore, the recent topic demands elaboration of experimental methods, more adequate to the features of adolescents and psycho-instructional peculiarities of moral competence evaluation. Thus comparative study of different ways of moral tasks presentation, which include different moral dilemmas, builds the ground for new diagnostic instrument for adolescent moral competence evaluation which seems to be rather perspective. It was shown that technology-based method represented by the video-based moral dilemma, its authenticity, motivational and emotional "strength" can provide the researcher with a powerful diagnostic tool for moral competence investigation.

Theoretical significance of this piece of work is defined by additional virtues of moral development substantial diagnostics, discovered with a new technology-based assessment method.

Practical significance of the present study paves way to the development of a new diagnostic instrument, which is adequate for adolescent moral competence evaluation. Such virtue discovers additional prospects both for diagnostic and for developmental, instructional and corrective (intervention) work with adolescents.

Novelty of present research is proved by testing new method for adolescent's moral competence assessment.

6. Open Questions and Perspectives for Future Research

Moral dilemma contents or contents of videocassette could become "older" in regard to the topic it represents and the way it is made. Things, their meaning and amount, which were crucial 30-40 or even more years ago in presented moral dilemma and even patterns of behavior could become insufficient to the future society. For example, in the famous "Heinz dilemma" used by Kohlberg in his studies - the amount of 2000\$ was not unavailable, but at least extremely high to people in Chicago, whom Kohlberg has presented such a dilemma, but nowadays, decades later, this amount of money seems to be rather adequate, and the decision to "steal" seems mostly criminal. In this regard, with changing quantities and qualities of things, moral values and norms change, which comes with time, the video moral dilemmas, have to be reshoot, either use such equalities for moral issues that are more or less stable and eternal (not like a special amount of money or an expensive thing that could simply lose its price) regarding moral values and norms of the present society. Anyhow such renewal of stimulus material is as normal as standardization and restandardization of tests, so as to not loose their validity with time.

As it was stressed in the thesis (see 1.5 for details) such factors like family and upbringing, school education, moral values of the person and situational factors indisputably affect moral competence and moral judgements of teenagers. Cultural differences and economical situation have strong effect on moral dilemma solving and on a level of moral competence either (Molchanov, 2005). Being presented in the Western or Eastern part of the world, suburbs of the city, poor ghetto or in the centre of the capital city, same moral situation would be solved in absolutely different ways (Molchanov, 2005). In the same way adolescents from financially safe family and from the poor parents probably base on absolutely different values while solving the moral task, which would be oriented on justice, stealing and other moral norms. In the presented empirical research only adolescents of middle-class families, from culturally and financially "normal" parts of Moscow took part. In addition, the moral dilemmas were quite close to the needs of these adolescents. So, there is no assurance that the same results could be achieved in other cities of Russian or in other countries of the world. Some situational factors as the moral atmosphere in the classroom, mood of the respondent, or even the weariness of a respondent

adolescent can affect the results of assessment. However, these are more particular cases than naturally determined phenomenon. These points should be taken to account in future research.

Unfortunately it was impossible to compare results of different moral dilemmas' solving by one group, so to provide the results with test-sensitivity data. The reason for that was more consciously based than unintentionally omitted. Introducing moral tasks to solve one after another often develop the skills of moral solving and moral growth, and higher results in solving every subsequent moral task (Karabanova & Podolskij, 2003). Probably even while presenting adolescents the pretest task (i.e. tasks "Julia" and "Natasha" in Main study 1 and Main study 2) will already produce the intervention effect on the moral judgement progress or moral competence growth, but that doesn't make any sense for the main comparison of two presentation forms (textual and video), presented in the empirical research study, because they were equalized by the same conditions of the task solving in pretest. Thus not to mixture "intervention" effect of moral growth, based only on presentation order of moral dilemma itself, with natural differences of solving different moral tasks by one respondent, the comparison of different moral dilemmas' solving results by same adolescents was not presented in this study, to my regret.

Still it is not clear, which preferences of video technology realize the motivation, inclusion and further objectivation of moral contents, and higher level of achieved moral competence as a result. Is it empathic arousal, emotional involvement, or is it a cut, actors play or the special sound effects with music? Nevertheless by this moment one can confidently stress advantages of video technologies in general (not dividing it to the different oral or visual or spatial sources of information), for the needs of moral competence investigation. In the future it would be of great interest to study this question in regard to more detailed analysis of video semiotics.

In regard to the further elaboration of valuable method of adolescent moral competence measurement, the "response" part of the method, namely the questionnaire, its contents (questions) and methods of data collecting needs to be much more precisely elaborated, validation and further statistical processing has to be done.

I can point out the following perspectives of the future research:

- 1) It is important to study more deeply correlation of explored subject with respondents from different socio-economical cohorts, and to explore cross-cultural differences.

- 2) An issue of relations between individual-psychological features of respondents and the explored phenomena is open. In addition, other factors influencing moral reasoning have to be taken into account more precisely.
- 3) It seems to be fruitful (although quite difficult to obtain) to use a bigger sample to develop the scale of moral competence, to make it possible to define respondent's moral competence level after diagnostics, on the basis of the 3-component model of moral competence.

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Appendixes

Appendix 1. Parameters, questionnaire items and answer examples.

Parameter #1. The ability to adequately perceive oneself as a subject of moral interaction, to realize and argue one's moral norms, values definitions caused by moral conflict was measured by following questions.

Questionnaire for moral dilemma "Friends"

1. *"How would you behave if you were in shoes of main hero? "*

Questionnaire for moral dilemma "Julia"

1. *"How would you behave if you were in Julia's shoes? Why? "*

Questionnaire for moral dilemma "Natasha"

1. *"How would you behave if you were in Natasha's shoes? Why? "*

Questionnaire for moral dilemma "Misha"

1. *"How would you behave if you were in Misha's shoes? Why? "*

Questionnaire for moral dilemma "Nikita"

1. *"How would you behave if you were in Nikita's shoes? Why? "*

Questionnaire for moral dilemma "Andrey"

1. *"How would you behave if you were in Andrey's shoes? Why? "*

This parameter was measured by 3-grade scale:

- 1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer),
- 2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of situation or include them only partly), and
- 3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

Examples of received points and answers on question *"How would you behave if you were in Misha's shoes? Why?"* from questionnaire to moral dilemma "Misha":

- 1 – *"I think Misha would give back the rest"* (Rita¹⁰, 6th Grade)
- 2 – *"I would give the whole rest back and ask mother for some money. I'm pretty sure, that she would give it to me"* (Katya, 9th Grade)
- 3– *"I would give money back, because mother trusts me. And then to ask her for some money on present"* (Love story, 9th Grade)

¹⁰ Names and nicknames used here are the ones originally specified by adolescents.

Parameter #2. The ability to adequately perceive the interests and aims of the situation's participants, who are involved in moral dilemma. Comprehension of their interests, intentions and aim's contradictions. Presupposition of their probable behavior, by definition of the major motives.

Questionnaire for moral dilemma "Friends"

2. *"How would the other participants treat the hero's behavior if she'll make the same decision like you wish to make? "*

Questionnaire for moral dilemma "Julia"

2. *"How would the other participants treat Julia's behavior if she makes the same decision like you wish to make? "*

Questionnaire for moral dilemma "Natasha"

2. *"How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make? "*

Questionnaire for moral dilemma "Misha"

2. *"How would the other participants treat Misha's behavior if he makes the same decision like you wish to make? "*

Questionnaire for moral dilemma "Nikita"

2. *"How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make? "*

Questionnaire for moral dilemma "Andrey"

2. *"How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make? "*

This parameter was measured by 3-grade scale:

- 1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer),
- 2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of situation or include them only partly), and
- 3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

Examples of received points and answers on question *"How would the other participants treat Misha's behavior if he'll make the same decision like you intend to make? "* from questionnaire to moral dilemma "Misha":

1 – *"In no way"* (Sasha M., 6th Grade)

2 – *"He will then be respected even more"* (Polina, 9th Grade)

3 – *"Mother will be grateful, that Misha understood their situation, but Snake would be disappointed with Misha's absence on the birthday party"* (Ekaterina, 6th Grade)

Parameter #3. The ability to perceive own feelings, namely sympathy, relative to the participants of moral dilemma, and to provide it with argumentation (adequately to the moral dilemma contents) in regard to the subject of sympathy.

Questionnaire for moral dilemma "Friends"

3. *"Whom do you sympathize in this situation? Why? "*

Questionnaire for moral dilemma "Julia"

3. *"Whom do you sympathize in this situation? Why? "*

Questionnaire for moral dilemma "Natasha"

3. *"Whom do you sympathize in this situation? Why? "*

Questionnaire for moral dilemma "Misha"

3. *"Whom do you sympathize in this situation? Why? "*

Questionnaire for moral dilemma "Nikita"

3. *"Whom do you sympathize in this situation? Why? "*

Questionnaire for moral dilemma "Andrey"

3. *"Whom do you sympathize in this situation? Why? "*

In moral dilemmas "Natasha", "Misha", "Nikita" and "Andrey" such parameter included two sub-parameters:

The first sub-parameter was represented by the question *"Whom do you sympathize in this situation?"* and reflected the subject of sympathy. Thus for each moral dilemma it was measured differently. Generally, this scale is *not* quantitative, because it reflects one or another participant of moral dilemma whom adolescent sympathizes:

Questionnaire for moral dilemma "Natasha"

1 – *"Natasha"*

2 – *"Julia"*

3 – *"Teacher"*

4 – *"Parents"*

5 – *"No one"*

Questionnaire for moral dilemma "Misha"

- 1- "Misha"
- 2 - "Snake"
- 3 - "Parents"
- 4 - "Misha and his parents"
- 5 - "No one".

Questionnaire for moral dilemma "Nikita"

- 1 - "Nikita"
- 2 - "Old Lady"
- 3 - "Serious Man"
- 4 - "No one"

Questionnaire for moral dilemma "Andrey"

- 1 - "Andrey"
- 2 - "Andrey's parents"
- 3 - "Andrey's friends"
- 4 - "A man with a cell phone"
- 5 - "No one".

The second sub-parameter (which represented *parameter#3* completely in moral dilemmas "Friends" and "Julia") reflected the quality of presented argumentation and was measured by 3-grade scale:

- 1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer),
- 2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of situation or include them only partly), and
- 3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

Examples of received points and answers on question "*Whom do you sympathize in this situation? Why?*" from questionnaire to moral dilemma "Misha":

- 1 - "No one. Because I don't know them " (Dasha, 7th Grade)
- 2 - "Misha. Because I believe him to behave in a good way"(Nastya, 6th Grade)
- 3 - "Misha. Because he never lies to his parents and understands the financial difficulties in the family"(A.romanoff, 9th Grade)

Parameter #4. The ability to perceive and comprehend others' feelings - feelings of moral dilemma participants.

Questionnaire for moral dilemma "Julia"

4. *"What feelings does Julia experience? "*

Questionnaire for moral dilemma "Natasha"

4. *"What feelings does Natasha experience? "*

Questionnaire for moral dilemma "Misha"

4. *"What feelings does Misha experience? "*

Questionnaire for moral dilemma "Nikita"

4. *"What feelings does Nikita experience? "*

Questionnaire for moral dilemma "Andrey"

4. *"What feelings does Andrey experience? "*

This parameter was measured by 3-grade scale:

- 1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer),
- 2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of situation or include them only partly), and
- 3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

Examples of received points and answers on question *"What feelings does Misha experience?"* from questionnaire to moral dilemma "Misha":

- 1 – *"He wants to go to the birthday party"* (Kot, 6th Grade)
- 2 – *"Confusion"* (Devchon_ka, 6th Grade)
- 3 – *"Indignation, confusion, inconvenience"*(Maria, 9th Grade)

Parameter #5. The ability to determine own feelings and empathy in regard to moral dilemma participants.

Questionnaire for moral dilemma "Julia"

5. *"Have you experienced the same feelings of Julia once you got to know her difficult situation? "*

Questionnaire for moral dilemma "Natasha"

5. *"Have you experienced the same feelings of Natasha once you got to know her difficult situation?"*

Questionnaire for moral dilemma "Misha"

5. *"Have you experienced the same feelings of Misha once you got to know his difficult situation? "*

Questionnaire for moral dilemma "Nikita"

5. *"Have you experienced the same feelings of Nikita once you got to know his difficult situation?"*

Questionnaire for moral dilemma "Andrey"

5. *"Have you experienced the same feelings of Andrey once you got to know his difficult situation?"*

This parameter was measured by results on close-ended question and had 4-grade scale:

1 – "No"

2- "Rather NO, than yes"

3 – "Rather YES, than no"

4- "Yes".

Parameter #6. The ability to describe own attitude to participants, which are involved in moral dilemma, taking into account their interests, aims, motives, and values. Adequacy is measured by the account of moral dilemma features.

Questionnaire for moral dilemma "Friends"

4. *"What do you think about the participants of this situation? Describe each of them in couple of sentences"*

Questionnaire for moral dilemma "Natasha"

6a. *"What do you think about the participants of this situation? - Natasha"*

6b. *"What do you think about the participants of this situation? - Julia"*

6c. *"What do you think about the participants of this situation? - Teacher"*

6d. *"What do you think about the participants of this situation? - Julia's Parents"*

Questionnaire for moral dilemma "Misha"

6a. *"What do you think about the participants of this situation? - Misha"*

6b. *"What do you think about the participants of this situation? - Parents"*

6c. *"What do you think about the participants of this situation? - Snake"*

14. *"What do you think about friendship between Misha and Snake?"*

Questionnaire for moral dilemma "Nikita"

6a. *"What do you think about the participants of this situation? - Nikita"*

6b. *"What do you think about the participants of this situation? - Old lady"*

6c. *"What do you think about the participants of this situation? - Serious man"*

12. *"What Nikita has to do with Old Lady and the Serious man in this situation?"*

Questionnaire for moral dilemma "Andrey"

6a. *"What do you think about the participants of this situation? - Andrey"*

6b. *"What do you think about the participants of this situation? - Parents"*

6c. *"What do you think about the participants of this situation? - Friends"*

14. *"What do you think about relations between Andrey and his friends?"*

This parameter was measured by 3-grade scale:

1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer),

2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of situation or include them only partly), and

3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

Examples of received points and answers on questions *"What do you think about the participants of this situation? - Misha"*, *"What do you think about the participants of this situation? – Parents"*, *"What do you think about the participants of this situation? – Snake"*, from questionnaire to moral dilemma "Misha":

1 – ... - Misha. *"Generally I don't feel any sympathy or antipathy to Misha, because I don't know how he would behave in such situation"* (Anton, 9th Grade)

2 – ... - Snake. *"Probably he is a good friend of Misha. It's fun to be with him "* (Alisa, 9th Grade)

3 – ... - Parents. *"Kind, good mentors "*(Viktor F., 7th Grade)

Parameter #7. Central parameter of moral competence. The ability to reflect the whole spectrum of moral norms and main conflict of moral dilemma. The ability to understand which norms are contradictory, which of them could be infringed, The ability to comprehend what is the best way to behave, taking to account probable consequences of moral dilemma.

Questionnaire for moral dilemma "Friends"

5. *"Wherein does a conflict of this situation lie? "*

6. *"How can the main hero argue in this situation, making a decision on how to act? "*

Questionnaire for moral dilemma "Julia"

6. *"Wherein does a conflict of this situation lie? "*

7. *"How can Julia argue in this situation, making a decision on how to act? "*

Questionnaire for moral dilemma "Natasha"

7. *"Wherein does a conflict of this situation lie? "*

10. *"How can Natasha argue in this situation, making a decision on how to act? "*

Questionnaire for moral dilemma "Misha"

7. *"Wherein does a conflict of this situation lie? "*

10. *"How can Misha argue in this situation, making a decision on how to act? "*

Questionnaire for moral dilemma "Nikita"

7. *"Wherein does a conflict of this situation lie? "*

9. *"How can Nikita argue in this situation, making a decision on how to act? "*

Questionnaire for moral dilemma "Andrey"

7. *"Wherein does a conflict of this situation lie? "*

10. *"How can Andrey argue in this situation, making a decision on how to act? "*

This parameter was measured by 3-grade scale:

- 1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer),
- 2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of situation or include them only partly), and
- 3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

Examples of received points and answers on question *"Wherein does a conflict of this situation lie?"* from questionnaire to moral dilemma "Misha":

- 1 – *"I have no idea! As for me, there is no conflict in this situation"* (Angel, 9th Grade)
- 2 – *"Misha is afraid whether he will get some money form his parents, or not"*(Dasha, 6th Grade)
- 3 – *"Misha faces a dilemma: to give the money to his mother, or to take the money for the friend's present"* (Lem, 6th Grade)

Examples of received points and answers on question *"How can Misha argue in this situation, making a decision on how to act?"* from questionnaire to moral dilemma "Misha":

- 1 – *"What will be next"* (Rita, 6th Grade)
- 2 – *"I deserved the rest of money, which I saved, the more so, as Snake is his friend and not congratulating him would be meanly"*(Alisa, 9th Grade)
- 3 – *"He faces the dilemma: "either... or..." a friend needs a present, but at the same time family needs money"* (Lem, 6th Grade)

Parameter #8. The ability to take a perspective of another participant of the situation, and understanding of the norms, interests and goals of other participants of moral dilemma. The

ability to understand their probable behavior, taking into account moral values and motives of moral dilemma participants.

Questionnaire for moral dilemma "Natasha"

8. *"How is the situation viewed by Julia? "*

Questionnaire for moral dilemma "Misha"

8. *"How is the situation viewed by Parents? "*

Questionnaire for moral dilemma "Nikita"

8. *"How is the situation viewed by the Old Lady? "*

Questionnaire for moral dilemma "Andrey"

8. *"How's the situation viewed by Andrey's Friends? "*

This parameter was measured by 3-grade scale:

- 1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer),
- 2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of situation or include them only partly), and
- 3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

Examples of received points and answers on question. *"How is the situation viewed by Parents? "* from questionnaire to moral dilemma "Misha":

- 1 – *"Their son went to the shop, to buy some stuff. What can they say more?!"* (Baralgin, 9th Grade)
- 2 – *"That, there is no need to keep friendship with Snake "*(Marina, 9th Grade)
- 3 – *"The parents can't give money to Misha, but how then he can go to his friends' birthday party? It is important for Misha"* (Natasha, 6th Grade)

Parameter #9. The ability to evaluate norms and moral values of participants and an ability to argue on that topic, taking to account norms, interests and goals of all participants of moral dilemma.

In moral dilemmas "Natasha", "Misha", and "Andrey" such parameter included two sub-parameters:

The first sub-parameter was aimed to evaluate norms and moral values of participants and for each moral dilemma it was measured differently.

Questionnaire for moral dilemma "Natasha"

9a. *"Do you respect the parents' attitude? "*

Questionnaire for moral dilemma "Misha"

9a. *"Do you respect the parents' attitude? "*

Questionnaire for moral dilemma "Andrey"

9a. *"Do you respect the Andrey's friends' attitude? "*

This sub-parameter was measured by results on these close-ended questions, which had 4-grade scale:

1 – "No"

2- "Rather NO, than yes"

3 – "Rather YES, than no"

4- "Yes".

The second sub-parameter reflected the quality of presented argumentation in regard to the first sub-parameter, by asking second subquestion "*Why?*" and was measured by 3-grade scale:

1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer),

2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of situation or include them only partly), and

3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

Examples of received points and answers on question "*Do you respect the parents' attitude? Why?*" from questionnaire to moral dilemma "Misha":

1 – "*Parents do not give money to Misha*" (Marina, 7th Grade)

2 – "*They wish Misha well*"(Red, 9th Grade)

3 – "*There is no choice, when there is less money in the family. But the parents have to understand their child.*"(Tanuha, 9th Grade)

Parameter #10. The ability to comprehend the feelings of various participants with regard to probable ways of moral dilemma solving.

Questionnaire for moral dilemma "Julia"

8. *"What will the teacher feel if Julia would lie? "*

9. *"What will Julia feel if she says truth and she'll finish the year with worse marks? "*

Questionnaire for moral dilemma "Natasha"

11. *"What will the teacher feel if Natasha lies? "*

12. *"What will Julia feel if her friend says the truth and she finishes the year with worse marks? "*

13. "What shall the parents of Julia feel getting to know about her grade for the assignment? "

Questionnaire for moral dilemma "Misha"

11. "What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend? "

12. "What will Misha feel if he returns the change but his parents refuse his request for money? "

Questionnaire for moral dilemma "Nikita"

10. "What will Nikita feel if he gives back the money to the owner or to the poor old lady?"

Questionnaire for moral dilemma "Andrey"

11. "What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone? "

12. "What will Andrey feel if he steals the cellular phone? "

This parameter was measured by 3-grade scale:

- 1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer),
- 2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of situation or include them only partly), and
- 3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

Examples of received points and answers on question "What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?" from questionnaire to moral dilemma "Misha":

2 – "Remorse" (Marina, 6th Grade)

Examples of received points and answers on question "What will Misha feel if he returns the change but his parents refuse his request for money?" from questionnaire to moral dilemma "Misha":

1 – "I don't know" (Flash, 7th Grade)

3 – "Disappointment, he will feel ashamed, if he would present nothing to his friend"(Alesya, 9th Grade)

Parameter #11. The ability to define the most "moral" participant among everybody with regard to his/her aims norms and values. Inconsistency with Parameter#3 results shows respondent's internal contradictoriness.

The parameter was represented by the question "Whose aims do you find worthy in this situation? " (question N13 in Questionnaires for moral dilemmas "Misha", "Nikita" and "Andrey", and

question N14 in Questionnaire for moral dilemma "Natasha") and reflected the choice of most respectable participant, in regard to its aims. Thus for each moral dilemma it was measured differently. Likewise with parameter#3 this scale it is *not* quantitative one because it reflects the participant of moral dilemma whom adolescent sympathizes:

Questionnaire for moral dilemma "Natasha"

- 1 – "Natasha"
- 2 – "Julia"
- 3 – "Teacher"
- 4 – "Parents"
- 5 – "No one"

Questionnaire for moral dilemma "Misha"

- 1– "Misha"
- 2 – "Snake"
- 3 – "Parents"
- 4 – "Misha and his parents"
- 5 – "No one"

Questionnaire for moral dilemma "Nikita"

- 1 – "Nikita"
- 2 - "Old Lady"
- 3 – "Serious Man"
- 4 – "No one"

Questionnaire for moral dilemma "Andrey"

- 1 – "Andrey"
- 2 - "Andrey's parents"
- 3 – "Andrey's friends"
- 4 – "A man with a cell phone"
- 5 – "No one".

Parameter #12. The ability to presuppose participants' probable behavior, taking into account their and all other participants' aims, norms, moral values and motives within the moral dilemma.

Questionnaire for moral dilemma "Julia"

10a. *"What would happen if Julia says truth? "*

10b. *"What would happen if Julia lies? "*

Questionnaire for moral dilemma "Natasha"

16a. *"What would happen if Natasha says truth? "*

16b. *"What would happen if Natasha lies? "*

Questionnaire for moral dilemma "Misha"

16a. *"What would happen if Misha gives the change back to the parents? "*

16b. *"What would happen if Misha buys a gift for his friend with the change? "*

Questionnaire for moral dilemma "Nikita"

14a. *"What would happen if Nikita gives the money back to the owner? "*

14b. *"What would happen if Nikita gives money to the Old lady? "*

14c. *"What would happen if Nikita keeps money? "*

Questionnaire for moral dilemma "Andrey"

15a. *"What can happen if Andrey will steal the cellular phone from the table? "*

15b. *"What can happen if Andrey will not give back the cellular phone before his father returns back home? "*

This parameter was measured by 3-grade scale:

- 1- Explanation DOESN'T uncover the right answer (wrong or non-adequate answer),
- 2- Explanation PARTLY UNCOVERS the right answer (right adequate answer, which doesn't include all the peculiarities of situation or include them only partly), and
- 3- Explanation FULLY UNCOVERS the right answer (right adequate answer, including all the peculiarities of situation).

Examples of received points and answers on question *"What would happen if Misha gives the change back to the parents? "* from questionnaire to moral dilemma "Misha":

1 – *"Misha will be punished"* (Vladimir, 6th Grade)

2 – *"There is a chance, that he will receive the money on a present"*(Anton, 10th Grade)

Examples of received points and answers on question *"What would happen if Misha buys a gift for his friend with the change?"* from questionnaire to moral dilemma "Misha":

3 – *"He will behave unfair in regard to his parents, but will go to the birthday party"* (Julja, 9th Grade)

Appendix 2. Moral dilemma "Friends"

"Friends"

Olja and Sveta are good friends, they trust each other completely.

Olja is a beautiful and self-assured young lady.

Sveta is shy and not so attractive.

In the shop Sveta tries on the trousers that she likes a lot but it does not fit her,
makes her look fat.

Sveta asks her friend: "Well. How does it fit me?"

Olja looks but does not know what to answer.

What should Olja say?

Appendix 3. Questionnaire for moral dilemma "Friends"

What is your name _____
Grade _____

1. How would you behave if you were in shoes of main hero?
.....
.....

Why?
.....

2. How would the other participants treat hero's behavior if she makes the same decision like you wish to make?
.....

3. Whom do you sympathize in this situation? Why?
.....

4. What do you think about the participants of this situation? Describe each of them in couple of sentences.
.....
.....

5. Wherein does a conflict of this situation lie?
.....
.....

6. How can the main hero argue in this situation, making a decision on how to act?
.....
.....

7. How one has to behave in that situation?
.....
.....

8. What do you think: why the hero can behave not as it is "needed", but oppositely? What rules him?
.....
.....

Appendix 4. Moral dilemma "Julia"

"Julia"

The teacher returns tests on maths back to pupils. Julia has "Good" for her test. Julia is a diligent student and she receives only high grades: "Good" or "Excellent", but today's marks is decisive for the general year grade for Julia, and she definitely needs "Excellent" to have "Excellent" as a collective mark by the end of the year . As always the teacher follows grades announced by students and simultaneously put the named grade in a class-book.

How should Julia act?

Appendix 5. Questionnaire for moral dilemma "Julia"

What is your name _____
Grade _____

Dear Friend! You just got acquainted with a story of Julia. We would like to know how did you understand this story and what do you think about the participants of this story. We would be very grateful for your answers!

1. How would you behave if you were in Julia's shoes? Why?

.....
.....

2. How would the other participants treat Julia's behavior if she makes the same decision like you wish to make?

.....
.....

3. Whom do you sympathize in this situation? Why?

.....
.....

4. What feelings does Julia experience?

.....
.....

5. Have you experienced the same feelings of Julia once you got to know her difficult situation?

No Rather NO, than yes Rather YES, than no Yes

6. Wherein does a conflict of this situation lie?

.....
.....

7. How can Julia argue in this situation, making a decision on how to act?

.....
.....

8. What will the teacher feel if Julia would lie?

.....
.....

9. What will Julia feel if she says truth and she'll finish the year with worse marks?

.....
.....

10. What can happen if:

a) ... Julia says truth?

.....
.....

.....

b) ... Julia lies?

.....
.....

Thank you!

Appendix 6. Moral dilemma "Natasha"

"Natasha"

One week ago 9th "B" class has written annual test on mathematics. Today the teacher has brought checked up works and passed them to Natasha, the head of the class, a pack of tests. Natasha distributes the tests to schoolmates and simultaneously announces their grades to the class and teacher. The teacher following what Natasha says put the named grade in class-book. Everyone knows in the class that Natasha never lies, even when truth could bring her problems.

Julia, is Natasha's close friend, she gets high grades (only "good" and "excellent"), but today's marks is decisive for the general year grade for Julia. In case Julia receives an "excellent" mark for this test, she could enter free-of-payment faculty in one prestigious college. Julia dreams to study in that college. Her parents are not against it, but under one condition - they wouldn't pay for her studies in spite of the fact that Julia's parents earn enough money. It's their strong belief, that a person should achieve everything by himself, by his own work.

Natasha reaches Julia's test and she sees that Julia got "good" grade, not an "excellent" one. Natasha hesitates with the announcement of her grade, knowing that "excellent" was really necessary for Julia.

How should Natasha act?

Appendix 7. Questionnaire for moral dilemma "Natasha"

What is your name _____
Grade _____

Dear Friend! You just got acquainted with a story of Natasha. We would like to know how did you understand this story and what do you think about the participants of this story. We would be very grateful for your answers!

1. How would you behave if you were in Natasha's shoes? Why?

.....
.....

2. How would the other participants treat Natasha's behavior if she makes the same decision like you wish to make?

.....
.....
.....

3. Whom do you sympathize in this situation? Why?

.....
.....

4. What feelings does Natasha experience?

.....
.....

5. Have you experienced the same feelings of Natasha once you got to know her difficult situation?

No Rather NO, than yes Rather YES, than no Yes

6. What do you think about the participants of this situation?

Natasha _____
Julia _____
Teacher _____
Julia's Parents _____

7. Wherein does a conflict of this situation lie?

.....
.....

8. How is the situation viewed by Julia?

.....
.....

9. Do you respect the parents' attitude?

No Rather NO, than yes Rather YES, than no Yes

Why?

.....
.....

10. How can Natasha argue in this situation, making a decision on how to act?

.....
.....

11. What will the teacher feel if Natasha lies?

.....
.....

12. What will Julia feel if her friend says the truth and she finishes the year with worse marks?

.....
.....

13. What shall the parents of Julia feel getting to know about her grade for the assignment?

.....
.....

14. Whose aims do you find most worthy in this situation?

.....
.....

15. Whether Natasha has to say the truth in this situation (to say the real Julia's mark), while being the best friend of Julia?

.....
.....

16. What can happen if:

a) ... Natasha says truth?

.....
.....

b) ... Natasha lies?

.....
.....

Thank you!

Appendix 8. Moral dilemma "Misha"

"Misha"

Misha is a student of the 10th Grade, secondary school. He's an honours pupil, he studies neither bad, neither perfect. Misha has a younger brother Zhenja, and Misha helps him whenever he asks. Misha has good rapport with his parents: they trust him, and he - trusts them; never lays them and always tries to help them. Somehow his mother sends Misha to the shop and edifies him: "Buy everything that is in this list. I don't have smaller notes now, so I give you 500 Rubles. If you get any change, please, bring it back, our family has not so much money now». Misha takes the list and money and runs to the shop. In the shop, while buying products, Misha decides to choose cheaper products, to save money and bring home more change, so as to please his mother.

After paying Misha receives big change, pleased, he goes back home. Approaching his apartment, Misha receives SMS on his mobile phone from his friend Snake. Misha considers Snake (which is fond of heavy metal) as a cool guy with whom it is possible to spend the time together cheerfully ... But Misha's parents do not like Snake so much for some reason and disapprove Misha's friendship with him. In the SMS-message Snake invites Misha to his birthday-party. Misha surely wants to go Snake's birthday party, but does not know - whether parents will give him money to buy a gift for Snake or not.

When Misha entered the apartment, mother asked him, whether he has brought the change?

Misha faces a hard choice -
What should Misha do?

Appendix 9. Questionnaire for moral dilemma "Misha"

What is your name _____

Grade _____

Dear Friend! You just got acquainted with a story of Misha. We would like to know how did you understand this story and what do you think about the participants of this story. We would be very grateful for your answers!

1. How would you behave if you were in Misha's shoes? Why?

.....
.....

2. How would the other participants treat Misha's behavior if he makes the same decision like you wish to make?

.....
.....

3. Whom do you sympathize in this situation? Why?

.....
.....

4. What feelings does Misha experience?

.....
.....

5. Have you experienced the same feelings of Misha once you got to know his difficult situation?

No Rather NO, than yes Rather YES, than no Yes

6. What do you think about the participants of this situation?

Misha _____

Parents _____

Snake _____

7. Wherein does a conflict of this situation lie?

.....
.....

8. How is the situation viewed by Parents?

.....
.....

9. Do you respect the parents' attitude?

No Rather NO, than yes Rather YES, than no Yes

Why?

.....
.....

10. How can Misha argue in this situation, making a decision on how to act?

.....
.....

11. What shall the parents of Misha feel if he will NOT give back the change but spend it on the gift for his friend?

.....
.....

12. What will Misha feel if he returns the change but his parents refuse his request for money?

.....
.....

13. Whose aims do you find most worthy in this situation?

.....
.....

14. What do you think about friendship between Misha and Snake?

.....
.....

15. What can happen if:

a) ... Misha will give back the change to the parents?

.....
.....

b) ... Misha buys on the change a present for his friend?

.....
.....

Thank you!

Appendix 10. Moral dilemma "Nikita"

"Nikita"

Nikita Sergeyev is a student of the 8th Grade. A day in school was quite nice and, going back home, on the way Nikita decides to buy something in the stall. Unfortunately he has almost no money and he stands and chooses something tasty for himself for a long time. An old lady stands right near to the shop, asking alms. She looks poor and mournful, like she really needs money. Suddenly a serious looking man appears; he looks very busy, runs up to the shop and demands a pack of cigarettes and a lighter. He didn't have time to put the things in the pocket as his mobile phone rang and while answering something nervously, he angrily hastens away... Suddenly the man loses the money, right near to the shop, but he doesn't notice that... Nikita lifts the money. It appeared to be 50 Rubles.... Nikita tries to shout for this man, who was leaving quickly but he does not hear. Nikita stands with this money in his hand, and he does not know what to do.

Nikita faces a hard choice-
How should he do?

Appendix 11. Questionnaire for moral dilemma "Nikita"

What is your name _____

Grade _____

Dear Friend! You just got acquainted with a story of Nikita. We would like to know how did you understand this story and what do you think about the participants of this story. We would be very grateful for your answers!

1. How would you behave if you were in Nikita's shoes? Why?

.....
.....

2. How would the other participants treat Nikita's behavior if he makes the same decision like you wish to make?

.....
.....

3. Whom do you sympathize in this situation? Why?

.....
.....

4. What feelings does Nikita experience?

.....
.....

5. Have you experienced the same feelings of Nikita once you got to know his difficult situation?

No Rather NO, than yes Rather YES, than no Yes

6. What do you think about the participants of this situation?

Nikita _____

Old lady _____

Serious man _____

7. Wherein does a conflict of this situation lie?

.....
.....

8. How is the situation viewed by the Old Lady?

.....
.....

9. How can Nikita argue in this situation, making a decision on how to act?

.....
.....

10. What will Nikita feel if he gives back the money to the owner or to the poor old lady?

.....
.....

11. Whose aims do you find most worthy in this situation?

.....
.....

12. What Nikita has to do with Old Lady and the Serious man in this situation?

.....
.....

13. Whose aims do you find most worthy in this situation?

.....
.....

14. What can happen if:

a) ... Nikita gives back the money to the owner?

.....
.....

b) ... Nikita gives money to the Old lady?

.....
.....

c) ... Nikita keeps money?

.....
.....

Thank you!

Appendix 12. Moral dilemma "Andrey"

"Andrey"

Andrey is a student of the 9"A" class of our school. Today his father leaves for a business trip. He would be away just for two days. Having bid adieu, father gives his personal and rather expensive mobile phone to his wife, saying that he would receive another mobile phone at the place he arrives temporarily for his use, and that he wouldn't need his own phone there. Once the father left and Andrey decided to take father's mobile phone for some days to school ... To show the phone to his friends, to brag...

Next day morning Andrey meets two girls from school and he wants to impress one of them. Young ladies became interested in Andrey's mobile phone and the girl, whom Andrey appreciated, has paid attention to him. After school, Andrey has fixed an appointed to meet his friend to go to the cinema - a new film which was just recently released. As they met a bit little later, than the appointed time they have to run to be in the cinema on time ... But while they ran, father's mobile phone accidentally fell down from the schoolbag into the snow and Andrey doesn't notice it then but does so only in the evening after returning from the cinema, while sorting the books from the backpack. The whole evening and the entire night Andrey tried to find the lost mobile... But it was unsuccessful...

In the afternoon, after school, Andrey was sitting with his friends in cafe. They were having fun and laughing, as always but Andrey was totally disappointed and couldn't find a place for himself - he was thinking of the lost mobile phone... Suddenly Andrey noticed a rich man next to him, who had exactly the same mobile phone like his father... Meanwhile the mobile phone rang, and a man answered the phone nervously, threw the phone on the table and leaves quickly... Andrey looked around the cafe: there was practically no one present inside... And very few people could watch him, the mobile phone still laid there and nobody paid attention to it ...

Andrey faces a hard choice- What should he do?

Appendix 13. Questionnaire for moral dilemma "Andrey"

What is your name _____
Grade _____

Dear Friend! You just got acquainted with a story of Andrey. We would like to know how did you understand this story and what do you think about the participants of this story. We would be very grateful for your answers!

1. How would you behave if you were in Andrey's shoes? Why?

.....
.....

2. How would the other participants treat Andrey's behavior if he makes the same decision like you wish to make?

.....
.....

3. Whom do you sympathize in this situation? Why?

.....
.....

4. What feelings does Andrey experience?

.....
.....

5. Have you experienced the same feelings of Andrey once you got to know his difficult situation?

No Rather NO, than yes Rather YES, than no Yes

6. What do you think about the participants of this situation?

Andrey _____
Parents _____
Friends _____

7. Wherein does a conflict of this situation lie?

.....
.....

8. How's the situation viewed by Andrey's Friends?

.....
.....

9. Do you respect the Andrey's friends' attitude?

No Rather NO, than yes Rather YES, than no Yes

Why?

.....
.....

10. How can Andrey argue in this situation, making a decision on how to act?

.....
.....

11. What shall the Andrey's parents feel while getting to know that Andrey had lost father's cellular phone?

.....
.....

12. What will Andrey feel if he steals the cellular phone?

.....
.....

13. Whose aims do you find most worthy in this situation?

.....
.....

14. What do you think about relations between Andrey and his friends?

.....
.....

15. What can happen if:

a) ... Andrey will steal the cellular phone from the table?

.....
.....

b) ... Andrey will not give back the cellular phone before his father returns back home?

.....
.....

Thank you!